

# STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION

2800 BERLIN TURNPIKE, P.O. BOX 317546  
NEWINGTON, CONNECTICUT 06131-7546



**Phone:** 860-594-3128

March 3, 2015

Subject: Project No. 42-304, 42-305, 42-310 & 42-316

F.A.P. Nos. 1042(124), 1042(125), 0032(193), & 1042(126)

Replacement of Bridge No. 02374 over I-84, Rehabilitation of Bridge No. 02375 over I-84 Eastbound and I-84 Connector, Rehabilitation of Bridge No. 02368A Route 2 Westbound over I-84 and, Rehabilitation of Bridge No. 02376 I-84 over I-84 East bound in the Town of East Hartford.

## NOTICE TO CONTRACTORS:

This is to notify all concerned and especially the prospective bidders that the bid opening for the subject project is still scheduled for **March 11, 2015** at 2:00 P.M. in the Conference Room of the Department of Transportation Administration Building, 2800 Berlin Turnpike, Newington, Connecticut.

**Addendum No. 1** is attached and can also be obtained on the Statewide Contracting Portal at [http://www.biznet.ct.gov/scp\\_search/BidResults.aspx?groupid=64](http://www.biznet.ct.gov/scp_search/BidResults.aspx?groupid=64)

This addendum is necessary to revise contact documents.

**Pre-Bid Questions and Answers:** Questions pertaining to DOT advertised construction projects must be presented through the CTDOT Pre-Bid Q and A Website. The Department cannot guarantee that all questions will be answered prior to the bid date. **PLEASE NOTE - at 12:01 am, the day before the bid, the subject project(s) being bid will be removed from the Q and A Website, Projects Advertised Section, at which time questions can no longer be submitted through the Q and A Website. At this time, the Q and A for those projects will be considered final, unless otherwise stated and/or the bid is postponed to a future date and time to allow for further questions and answers to be posted.**

*Philip J. Melchionne*

For: Gregory D. Straka  
Contracts Manager  
Division of Contracts Administration

**FEBRUARY 27, 2015**

**REHABILITATION OF BRIDGE NO'S. 02374, 02375, 02368A AND 02376**  
**I-84 AND ROUTE 2 INTERCHANGE**

**FEDERAL AID PROJECT NO'S. 1042(124), 1042(125), 0032(193) AND 1042(126)**  
**STATE PROJECT NO'S. 0042-0304, 0042-0305, 0042-0310 AND 0042-0316**

**CITY OF EAST HARTFORD**

**ADDENDUM NO. 1**

**SPECIAL PROVISIONS**

**REVISED SPECIAL PROVISIONS**

The following Special Provisions are hereby deleted in their entirety and replaced with the attached like-named Special Provisions:

- NOICE TO CONTRACTOR – EXISTING IMS
- SECTION 1.08 – PROSECUTION AND PROGRESS

The attached Storm Water Permit Registration (with signatures) is hereby added to this Contract.

The Bid Proposal Form and Detailed Estimate Sheets are not affected by these changes.

There will be no change in the number of calendar days due to this Addendum.

The foregoing is hereby made a part of the contract.



## **NOTICE TO CONTRACTOR – EXISTING IMS**

The Contractor is herein made aware of existing Incident Management System (IMS) conduit and appurtenances located on Bridge No. 2375 parapet and along I-84 EB in the vicinity of the project area.

The Contractor will be responsible for locating, verifying the location of and protecting all IMS below and above the ground. Prior to the start of construction, the Contractor shall contact “Call Before You Dig” and all utility within the towns along the project corridor. The Contractor shall also contact Robert Kennedy (860-594-3458) or James Gannon (203-673-7373) of ConnDOT Highway Operations at to mark out IMS conduit and appurtenances.

In areas adjacent to existing incident management system equipment, the Contractor is required to hand excavate. Any damage caused to the IMS conduit/equipment will be the responsibility of the Contractor, and will be replaced by the Contractor at the Contractor’s expense, as directed by the Engineer. Mark out of the IMS will not relieve the Contractor of responsibility for repair of damage caused by the Contractor or the Contractor’s sub-contractors.

## **SECTION 1.08 – PROSECUTION AND PROGRESS**

### **Article 1.08.04 - Limitation of Operations - Add the following:**

In order to provide for traffic operations as outlined in the Special Provision "Maintenance and Protection of Traffic," the Contractor will not be permitted to perform any work which will interfere with the described traffic operations on all project roadways as follows:

#### **ROUTE I-84/ROUTE 2**

On the following State observed Legal Holidays:

New Year's Day  
Good Friday, Easter\*  
Memorial Day  
Independence Day  
Labor Day  
Columbus Day  
Thanksgiving Day\*\*  
Christmas Day

The following restrictions also apply to the above Legal Holidays:

On the day before and the day after any of the above Legal Holidays.

On the Friday, Saturday, and Sunday immediately preceding any of the above Holidays celebrated on a Monday.

On the Saturday, Sunday, and Monday immediately following any of the above Holidays celebrated on a Friday.

\* From 6:00 a.m. the Thursday before the Holiday to 8:00 p.m. the Monday after the Holiday.

\*\* From 6:00 a.m. the Wednesday before the Holiday to 8:00 p.m. the Monday after the Holiday.

#### **During All Other Times**

The Contractor will be allowed to halt Route I-84 traffic for a period not to exceed 10 minutes to perform necessary work for the erection and setting of structural steel, for removal of existing

bridge superstructures, for the installation and removal of overhead sign supports as approved by the Engineer, from 12:01 a.m. to 5:00 a.m. on all non-Holiday days.

The Contractor shall maintain and protect traffic as shown on the accompanying "Limitation of Operations" chart, which dictates the minimum number of lanes that must remain open for each day of the week.

### **Special Events**

The Contractor will not be allowed to perform any work that will interfere with the existing traffic operations during the time period from four hours prior to and four hours following any event scheduled at the XL Center, Xfinity Theater, Convention Center, Expo Center, Rentschler Field, Downtown Hartford, and Downtown East Hartford.

This restriction is in addition to the restrictions noted above for Route 2 and I-84 and the associated ramps and exit only lanes. A schedule of special events at these facilities shall be requested through the East Hartford and Hartford Police Departments and shall be the responsibility of the Contractor.

### **Route 44**

Monday through Friday between 6:00 a.m. & 9:00 a.m. and between 3:00 p.m. & 6:00 p.m.

### **Ramps and Turning Roadways**

The Contractor shall not be permitted to perform any work that will interfere with existing traffic operations on any ramps and turning roadways within the project limits on:

Monday through Friday between 6:00 a.m. & 9:00 a.m. and between 3:00 p.m. & 7:00 p.m.  
Saturday and Sunday between 10:00 a.m. and 6:00 p.m.

During stage construction, the existing traffic operations is considered the number of lanes shown on the Maintenance and Protection of Traffic Plans contained in the Contract Plans.

The Contractor will be allowed to halt ramp traffic for a period not to exceed 10 minutes to perform necessary work for the erection and setting of structural steel, for removal of existing bridge superstructures, for the installation and removal of overhead sign supports as approved by the Engineer, from 12:01 a.m. to 5:00 a.m. on all non-Holiday or non-Special Event days.

### **All Other Roadways**

Monday through Friday between 6 a.m. and 9 a.m. and between 3 p.m. and 6 p.m.

### **Additional Lane Closure Restrictions**

It is anticipated that work on adjacent projects will be ongoing simultaneously with this project. The Contractor shall be aware of those projects and anticipate that coordination will be required to

maintain proper traffic flow at all times on all project roadways, in a manner consistent with these specifications and acceptable to the Engineer.

The Contractor will not be allowed to perform any work that will interfere with traffic operations on a roadway when traffic operations are being restricted on that same roadway, unless there is at least a one mile clear area length where the entire roadway is open to traffic or the closures have been coordinated and are acceptable to the Engineer. The one mile clear area length shall be measured from the end of the first work area to the beginning of the signing pattern for the next work area.

### **SEQUENCE OF OPERATIONS**

Information on the anticipated traffic positions and construction activities of adjacent contracts are supplied for the Contractor's information. The Contractor shall conform to the sequence of operation as follows:

#### **Season One**

##### Site No. 1

- Implement detour for SR 500 TR 805 from Governor Street to Route 2 Eastbound
- Shift traffic to the western side of Bridge No. 02374 per Stage 1 Construction Plans and the Maintenance and Protection of Traffic special provision.
- Construct eastern portion of Bridge No. 02374.
- Shift traffic to the eastern side of Bridge No. 02374 per Stage 2 Construction Plans and the Maintenance and Protection of Traffic special provision.

##### Site No. 3

- Implement detour for Site No. 3.
- Construct Bridge No. 02376 while traffic is detoured
- Allow use of closed ramp for construction access and activities associated with Site No. 4
- Complete Construction

##### Site No. 4

- Construct access areas for Site No. 4.
- Perform initial earthwork
- Install Temporary Earth Retaining Systems
- Remove and install Sign Support

#### **Season Two**

##### Site No. 1

- Continue use of detour for SR 500 TR 805 from Governor Street to Route 2 Eastbound
- Construct western portion of Bridge No. 02374.
- Complete Construction

Site No. 4

- Implement detour for Site No. 4
- Construct Bridge No. 02368A while traffic is detoured
- Weekend closures of TR 831 from I-84 Connector to Governor Street, TR 833 (I-84 Connector), SR 500 TR 805 from Governor Street to Route 2 eastbound and TR 830 from I-84 westbound to Route 2 eastbound during removal and installation of bridge superstructure elements.
- Complete Construction

Site No. 2

- Shift traffic to the western side of Bridge No. 02375 per Stage 1 Construction Plans and the Maintenance and Protection of Traffic special provision.
- Construct eastern portion of Bridge No. 02375.
- Shift traffic to the eastern side of Bridge No. 02375 per Stage 2 Construction Plans and the Maintenance and Protection of Traffic special provision.
- Construct western portion of Bridge No. 02375.
- Complete Construction

Route: 2 Eastbound Location: MP 0.00 – 0.93 & 1.49-5.31 Number of Through Lanes: 2							
Hour Beginn- ing	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Mid	1	1	1	1	1	1	1
1 AM	1	1	1	1	1	1	1
2 AM	1	1	1	1	1	1	1
3 AM	1	1	1	1	1	1	1
4 AM	1	1	1	1	1	1	1
5 AM	1	1	1	1	1	1	1
6 AM	E	E	E	E	E	E	E
7 AM	E	E	E	E	E	E	E
8 AM	E	E	E	E	E	E	E
9 AM	E	E	E	E	E	E	E
10 AM	E	E	E	E	E	E	E
11 AM	E	E	E	E	E	E	E
Noon	E	E	E	E	E	E	E
1 PM	E	E	E	E	E	E	E
2 PM	E	E	E	E	E	E	E
3 PM	E	E	E	E	E	E	E
4 PM	E	E	E	E	E	E	E
5 PM	E	E	E	E	E	E	E
6 PM	E	E	E	E	E	E	E
7 PM	E	E	E	E	E	2	E
8 PM	2	2	2	E	E	2	E
9 PM	2	2	2	2	2	2	2
10 PM	2	2	2	2	2	2	2
11 PM	1	1	1	1	1	1	1

Route: 2 Eastbound Location: MP 0.93-1.49 Number of Through Lanes: 3							
Hour Beginn- ing	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Mid	1	1	1	1	1	1	1
1 AM	1	1	1	1	1	1	1
2 AM	1	1	1	1	1	1	1
3 AM	1	1	1	1	1	1	1
4 AM	1	1	1	1	1	1	1
5 AM	1	1	1	1	1	1	1
6 AM	2	2	2	2	2	2	2
7 AM	3	3	3	3	E	2	2
8 AM	3	3	3	3	E	2	2
9 AM	3	3	3	3	3	3	2
10 AM	3	3	3	3	3	3	3
11 AM	3	3	3	3	3	3	3
Noon	3	3	3	3	3	E	3
1 PM	3	3	3	3	3	E	3
2 PM	3	3	3	3	E	E	3
3 PM	E	E	E	E	E	3	E
4 PM	E	E	E	E	E	3	E
5 PM	E	E	E	E	E	3	3
6 PM	3	3	3	3	E	2	3
7 PM	2	2	2	2	3	2	3
8 PM	2	2	2	2	2	2	2
9 PM	2	2	2	2	2	2	2
10 PM	1	1	1	1	1	2	2
11 PM	1	1	1	1	1	1	1

**On Holidays and within Holiday Periods, all Hours shall be ‘E.’**

**‘E’ = maintain existing traffic operations = all available travel lanes, including exit only lanes, climbing lanes and all available shoulder widths shall be open to traffic during this period.**

GENERAL

Route: 2 Westbound Location: MP 0.00-0.46 & 1.85-5.33 Number of Through Lanes: 2							
Hour Beginn- ing	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Mid	1	1	1	1	1	1	1
1 AM	1	1	1	1	1	1	1
2 AM	1	1	1	1	1	1	1
3 AM	1	1	1	1	1	1	1
4 AM	1	1	1	1	1	1	1
5 AM	2	2	2	2	2	1	1
6 AM	E	E	E	E	E	E	E
7 AM	E	E	E	E	E	E	E
8 AM	E	E	E	E	E	E	E
9 AM	E	E	E	E	E	E	E
10 AM	E	E	E	E	E	E	E
11 AM	E	E	E	E	E	E	E
Noon	E	E	E	E	E	E	E
1 PM	E	E	E	E	E	E	E
2 PM	E	E	E	E	E	E	E
3 PM	E	E	E	E	E	E	E
4 PM	E	E	E	E	E	E	E
5 PM	E	E	E	E	E	E	E
6 PM	E	E	E	E	E	E	E
7 PM	2	2	2	2	2	2	E
8 PM	2	2	2	E	E	2	2
9 PM	1	1	1	1	2	2	2
10 PM	1	1	1	1	1	2	2
11 PM	1	1	1	1	1	1	1

Route: 2 Westbound Location: MP 0.92-1.85 Number of Through Lanes: 3							
Hour Beginn- ing	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Mid	1	1	1	1	1	1	1
1 AM	1	1	1	1	1	1	1
2 AM	1	1	1	1	1	1	1
3 AM	1	1	1	1	1	1	1
4 AM	1	1	1	1	1	1	1
5 AM	1	1	1	1	1	1	1
6 AM	2	2	2	2	2	2	2
7 AM	2	2	2	2	2	2	2
8 AM	2	2	2	2	2	2	2
9 AM	2	2	2	2	2	2	2
10 AM	2	2	2	2	2	2	2
11 AM	2	2	2	2	2	2	2
Noon	2	2	2	2	2	2	2
1 PM	2	2	2	2	2	2	2
2 PM	2	2	2	2	2	2	2
3 PM	2	2	2	2	2	2	2
4 PM	2	2	2	2	2	2	2
5 PM	2	2	2	2	2	2	2
6 PM	2	2	2	2	2	2	2
7 PM	1	1	1	1	1	1	1
8 PM	1	1	1	1	1	1	1
9 PM	1	1	1	1	1	1	1
10 PM	1	1	1	1	1	1	1
11 PM	1	1	1	1	1	1	1

**On Holidays and within Holiday Periods, all Hours shall be ‘E.’**

**‘E’ = maintain existing traffic operations = all available travel lanes, including exit only lanes, climbing lanes and all available shoulder widths shall be open to traffic during this period.**

GENERAL

Route: I-84 Eastbound Location: MP 62.07 - 62.58 & 62.84 - 63.67 Number of Through Lanes: 2							
Hour Beginn- ing	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Mid	1	1	1	1	2	2	1
1 AM	1	1	1	1	1	1	1
2 AM	1	1	1	1	1	1	1
3 AM	1	1	1	1	1	1	1
4 AM	1	1	1	1	1	1	1
5 AM	2	2	2	2	2	1	1
6 AM	E	E	E	E	E	E	E
7 AM	E	E	E	E	E	E	E
8 AM	E	E	E	E	E	E	E
9 AM	E	E	E	E	E	E	E
10 AM	E	E	E	E	E	E	E
11 AM	E	E	E	E	E	E	E
Noon	E	E	E	E	E	E	E
1 PM	E	E	E	E	E	E	E
2 PM	E	E	E	E	E	E	E
3 PM	E	E	E	E	E	E	E
4 PM	E	E	E	E	E	E	E
5 PM	E	E	E	E	E	E	E
6 PM	E	E	E	E	E	E	E
7 PM	E	E	E	E	E	E	E
8 PM	E	E	E	E	E	E	E
9 PM	E	E	E	E	E	E	E
10 PM	2	2	2	E	E	2	2
11 PM	2	2	2	2	2	2	2

Route: I-84 Eastbound Location: MP 62.58 - 62.84 Number of Through Lanes: 3							
Hour Beginn- ing	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Mid	1	1	1	2	2	2	2
1 AM	1	1	1	1	1	1	1
2 AM	1	1	1	1	1	1	1
3 AM	1	1	1	1	1	1	1
4 AM	1	1	1	1	1	1	1
5 AM	2	2	2	2	2	1	1
6 AM	E	E	E	E	E	E	E
7 AM	E	E	E	E	E	E	E
8 AM	E	E	E	E	E	E	E
9 AM	E	E	E	E	E	E	E
10 AM	E	E	E	E	E	E	E
11 AM	E	E	E	E	E	E	E
Noon	E	E	E	E	E	E	E
1 PM	E	E	E	E	E	E	E
2 PM	E	E	E	E	E	E	E
3 PM	E	E	E	E	E	E	E
4 PM	E	E	E	E	E	E	E
5 PM	E	E	E	E	E	E	E
6 PM	E	E	E	E	E	E	E
7 PM	E	E	E	E	E	E	E
8 PM	E	E	E	E	E	3	E
9 PM	3	3	3	E	E	3	E
10 PM	3	3	3	3	3	3	3
11 PM	2	2	2	2	2	2	2

**On Holidays and within Holiday Periods, all Hours shall be ‘E.’**

**‘E’ = maintain existing traffic operations = all available travel lanes, including exit only lanes, climbing lanes and all available shoulder widths shall be open to traffic during this period.**

GENERAL



Route: I-84 Westbound Location: MP 63.05 - 63.46 Number of Through Lanes: 2							
Hour Beginn- ing	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Mid	1	1	1	2	2	2	1
1 AM	1	1	1	1	1	1	1
2 AM	1	1	1	1	1	1	1
3 AM	1	1	1	1	1	1	1
4 AM	1	1	1	1	1	1	1
5 AM	2	2	2	2	E	1	1
6 AM	E	E	E	E	E	E	E
7 AM	E	E	E	E	E	E	E
8 AM	E	E	E	E	E	E	E
9 AM	E	E	E	E	E	E	E
10 AM	E	E	E	E	E	E	E
11 AM	E	E	E	E	E	E	E
Noon	E	E	E	E	E	E	E
1 PM	E	E	E	E	E	E	E
2 PM	E	E	E	E	E	E	E
3 PM	E	E	E	E	E	E	E
4 PM	E	E	E	E	E	E	E
5 PM	E	E	E	E	E	E	E
6 PM	E	E	E	E	E	E	E
7 PM	E	E	E	E	E	E	E
8 PM	E	E	E	E	E	E	E
9 PM	E	E	E	E	E	E	E
10 PM	E	E	2	E	E	2	2
11 PM	2	2	2	2	2	2	2

Route: I-84 Westbound Location: MP 63.46 - 64.08 Number of Through Lanes: 4							
Hour Beginn- ing	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Mid	1	1	1	1	1	1	1
1 AM	1	1	1	1	1	1	1
2 AM	1	1	1	1	1	1	1
3 AM	1	1	1	1	1	1	1
4 AM	1	1	1	1	1	1	1
5 AM	2	2	2	2	2	1	1
6 AM	4	4	4	4	E	2	1
7 AM	E	E	E	E	E	2	1
8 AM	E	E	E	E	E	3	2
9 AM	4	4	4	4	4	3	3
10 AM	3	3	3	3	4	4	3
11 AM	3	3	3	3	4	4	4
Noon	3	3	3	3	4	4	4
1 PM	3	3	3	4	4	4	4
2 PM	3	3	3	4	4	4	4
3 PM	4	3	3	4	4	4	4
4 PM	3	3	3	4	4	4	4
5 PM	3	3	3	3	4	4	4
6 PM	3	3	3	3	4	4	4
7 PM	2	2	2	3	3	3	3
8 PM	2	2	2	2	2	2	3
9 PM	2	2	2	2	2	2	3
10 PM	2	2	2	2	2	2	2
11 PM	1	1	1	1	2	1	1

**On Holidays and within Holiday Periods, all Hours shall be 'E.'**

**'E' = maintain existing traffic operations = all available travel lanes, including exit only lanes, climbing lanes and all available shoulder widths shall be open to traffic during this period.**

GENERAL

Route: I-84 Westbound Location: MP 64.08 - 64.73 Number of Through Lanes: 3							
Hour Beginn- ing	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Mid	1	1	1	1	1	1	1
1 AM	1	1	1	1	1	1	1
2 AM	1	1	1	1	1	1	1
3 AM	1	1	1	1	1	1	1
4 AM	1	1	1	1	1	1	1
5 AM	2	2	2	2	2	1	1
6 AM	E	E	E	E	E	2	1
7 AM	E	E	E	E	E	2	1
8 AM	E	E	E	E	E	3	2
9 AM	E	E	E	E	E	E	3
10 AM	3	3	3	E	E	E	3
11 AM	3	3	3	E	E	E	E
Noon	3	3	3	E	E	E	E
1 PM	E	E	E	E	E	E	E
2 PM	E	E	E	E	E	E	E
3 PM	E	E	E	E	E	E	E
4 PM	3	3	3	E	E	E	E
5 PM	3	3	3	3	E	3	E
6 PM	3	3	3	3	3	3	E
7 PM	3	3	3	3	3	3	3
8 PM	2	2	2	2	3	3	3
9 PM	2	2	2	2	2	2	3
10 PM	2	2	2	2	2	2	2
11 PM	1	1	1	1	1	2	1

Route: I-84 Westbound Location: MP 64.73 - 66.44 Number of Through Lanes: 5							
Hour Beginn- ing	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Mid	1	1	1	1	1	1	1
1 AM	1	1	1	1	1	1	1
2 AM	1	1	1	1	1	1	1
3 AM	1	1	1	1	1	1	1
4 AM	1	1	1	1	2	1	1
5 AM	3	3	3	3	3	1	1
6 AM	E	E	E	E	E	3	3
7 AM	E	E	E	E	E	3	3
8 AM	E	E	E	E	E	3	3
9 AM	5	5	5	E	E	4	3
10 AM	5	5	5	5	5	4	3
11 AM	5	5	5	5	5	4	4
Noon	5	5	5	5	5	5	4
1 PM	5	5	5	5	5	4	4
2 PM	5	5	5	5	E	4	4
3 PM	5	5	5	5	E	4	4
4 PM	5	5	5	5	E	3	4
5 PM	5	5	5	5	E	3	4
6 PM	4	4	4	4	E	3	4
7 PM	3	3	3	3	4	3	3
8 PM	3	3	3	3	3	3	3
9 PM	3	3	3	3	3	2	3
10 PM	2	2	2	2	2	2	2
11 PM	2	2	2	2	2	2	1

**On Holidays and within Holiday Periods, all Hours shall be 'E.'**

**'E' = maintain existing traffic operations = all available travel lanes, including exit only lanes, climbing lanes and all available shoulder widths shall be open to traffic during this period.**

### **INCIDENT MANAGEMENT SYSTEM**

The Contractor will not be allowed to perform any work that will disrupt the normal operation of the Incident Management System (IMS) as follows:

- On Monday through Friday from 5:00 a.m. to 9:00 p.m.
- On Saturday and Sunday.
- On the day before or after any of the Legal Holidays listed below:

New Years Day

Good Friday

Memorial Day

Independence Day

Labor Day

Thanksgiving Day

Christmas Day

- On the Saturday, Sunday and Monday following Thanksgiving Day.
- On the Friday, Saturday and Sunday immediately preceding any of the above Legal holidays celebrated on a Monday.
- On the Saturday, Sunday and Monday immediately following any of the above Legal holidays celebrated on a Friday.

In order to maintain continuous operation of the Incident Management System, the Contractor shall adhere to the requirements in the special provision “Notice to Contractor – Installation Qualifications” and “Notice to Contractor –Installation of IMS Systems”.

#### **Article 1.08.07 - Determination of Contract Time:**

*Delete the second, third and fourth paragraphs and replace them with the following:*

When the contract time is on a calendar day basis, it shall be the number of consecutive calendar days stated in the contract, INCLUDING the time period from December 1 through March 31 of each year. The contract time will begin on the effective date of the Engineer's order to commence work, and it will be computed on a consecutive day basis, including all Saturdays, Sundays, Holidays, and non-work days.

**Article 1.08.08 - Extension of Time:**

*Delete the last paragraph, "If an approved extension of time... the following April 1".*

**Article 1.08.09 - Failure to Complete Work on Time:**

*Delete the second paragraph, "If the last day...the project is substantially completed" and replace it with "Liquidated damages as specified in the Contract shall be assessed against the Contractor per calendar day from that day until the date on which the project is substantially completed.".*

INTERDEPARTMENTAL  
MESSAGE

STATE OF CONNECTICUT

<b>To</b>	NAME, TITLE Central Permits Processing	January 15, 2015
	AGENCY, ADDRESS DEEP/ Bureau of Water Management, 79 Elm Street, Hartford , CT 06102	
<b>From</b>	NAME, TITLE Ravi V. Chandran, P.E., District Engineer, District 1	TELEPHONE (860) 258-4601
	AGENCY, ADDRESS Dept. of Transportation, 1107 Cromwell Ave., Rocky Hill, 06067	

Subject: Storm Water Permit Registration, Project Nos. 42-304, 42-305, 42-310, & 42-316  
I-84/ Route 2 Mixmaster Interchange – Replacement of Bridge No. 02374 &  
Rehabilitation of Bridge Nos. 02375, 02368A & 02376

Transmitted herewith is the Storm Water Permit Registration for State Project Nos. 42-304, 42-305, 42-310 & 42-316.

Project 42-304 involves the replacement of Bridge No. 02374. The bridge consists of an 85-foot simple single span steel girder and concrete deck superstructure. The project also includes reconstruction of roadway approaches and new drainage basins.

Projects 42-305, 42-310 & 42-316 involves various structure rehabilitation work, which includes concrete repairs to superstructure and substructure units, replacement of superstructure, modification of parapets, steel repairs, painting of end diaphragms, repair and/ or replacement of bearings and drainage.

If you have any questions concerning this subject, please contact Mr. David Steben at (860) 258-4641.

D. Steben/dcs

bcc: Mark Alexander / Paul Corrente

Ravi Chandran

Dean Cerasoli - File

Mark St Germain

Joseph Sullivan

Michael Salese

David Steben

STATE OF CONNECTICUT  
DEPARTMENT OF TRANSPORTATION

subject: Stormwater Permit Review  
State Project No. 42-304, 42-305,  
42-310 and 42-316  
Replacement of Bridge No. 02374  
and Rehabilitation of Bridge No.  
02375, 02368A & 02376  
Town of East Hartford

# memorandum

date: December 5, 2014

to  
Mr. Louis D. Bacho  
Transportation Supervising Engineer  
Bureau of Engineering and Construction

from  
Paul N. Corrente  
Transportation Supervising Planner  
Environmental Planning  
Bureau of Policy and Planning

ext. 2932

## Type of Review:

☐ Schematic Design ☐ Preliminary Design ☐ Semi-Final ☐ Final Design ☒ Permit ☐ Other:

My staff has reviewed the above mentioned project and the water resource compliance section of this office offers the following comments:

Comment #	Loc. or Sheet #	Comment	Inc.	Not Inc. (If not, WHY)
1	Transmittal Memo	1. A copy of the registration is not required for this submittal. Only the original.	X	
2	Stormwater Registration Form	2. Page 1 of 16. Acreage of soil disturbance (5.0 ac) contradicts the acreage presented on Page 5 in Estimated Distributed Area of the SWPCP (4.98 ac). Please be consistent. 3. Page 2 of 16. Part III: Registration Information, 1. – Business Phone number is 860-258-4601. 4. Page 5 of 16. Site Information, 10. – Check no for box b. and c. 5. Page 8 of 16. Part VI: Pollution Control Plan – Check category 4 in lieu of category 1. 6. Attachment A: USGS Quadrangle Map – Identify the boundary of the site, the center of the site and all outfalls.	X X X X X	
3	Stormwater Pollution Control Plan (SWPCP)	7. Page 6. Estimated Runoff Coefficient, 1 <sup>st</sup> Paragraph – What is the Stormwater Outlet Sheet? Is this referencing Part V: Stormwater Discharge Information or Appendix C: Outlet Protection Calculations? Please clarify. 8. Page 8. 3. Control Measures – Do not reference specifications. Only documents attached should be referenced. 9. Page 13. 7. Inspections – Specify between plan implementation inspection and routine inspections. 10. Page 13. 7. Inspections – Routine inspections should occur at least once every 7 calendar days and within 24 hours of the end of a storm that is 0.1 inches or greater per the Departments Construction Site Environmental Inspection Report (CSEIR) form. 11. Page 16. Sample Locations – As shown in Part V: Stormwater Discharge Information of the Registration all outlets are existing. Please clarify. 12. Appendix A, Plans, General – Do not reference plans in call	X X X X X X	

		out which are not included in SWPCP submission.		
		13. Appendix A, Plans, General – All outfalls as shown in Part V: Stormwater Discharge Information of the Registration must be called-out.	X	
		14. Appendix A, HWY-05/HWY-06 – Temporary drainage must be identified in Part V: Stormwater Discharge Information of the Registration. Temporary and permanent can overlap. Please clarify.	X	

If you have any questions regarding these comments, please contact Mr. Paul Corrente at 860-594-2932.

Christine A. Tedford/cat

cc: Paul N. Corrente – Andrew Piraneo – Christine A. Tedford  
Ravi V. Chandran – Dean P. Cerasoli – David C. Steben  
Susan L. Morneauult

**INTERDEPARTMENTAL  
MESSAGE**

**STATE OF CONNECTICUT**

<b>To</b>	<small>NAME, TITLE</small> Central Permit Processing Unit, 1 <sup>st</sup> Floor	<small>DATE</small>
	<small>AGENCY, ADDRESS</small> Department of Energy and Environmental Protection, 79 Elm Street, Hartford	
<b>From</b>	<small>NAME, TITLE</small> Ravi V. Chandran, District 1 Engineer	<small>TELEPHONE</small> 860-258-4601
	<small>AGENCY, ADDRESS</small> Department of Transportation, District 1, 1107 Cromwell Ave, Rocky Hill, CT 06067	

Subject:       **State Project Nos. 42-304, 42-305, 42-310 & 42-316**  
                    I-84/Route 2 Mixmaster Interchange  
                    Town of East Hartford  
                    Replacement of Bridge No. 02374 &  
                    Rehabilitation of Bridge Nos. 02375, 02368A & 02376

Attached is the registration for a General Permit for the Discharge of Stormwater and Dewatering Wastewaters Associated with Construction Activities for the above referenced projects.

Attachment

David M. Cicia/dmc

cc: Mark W. Alexander – Paul N. Corrente  
Theodore H. Nezames – Timothy D. Fields – Louis D. Bacho – Susan L. Morneault  
Ravi V. Chandran – Dean P. Cerasoli (District 1)  
Nicholas R. Giardina (BL Companies)  
Michael Woods (CJM)





Connecticut Department of  
Energy & Environmental Protection

CPPU USE ONLY

App #: \_\_\_\_\_

Doc #: \_\_\_\_\_

Check #: \_\_\_\_\_

## Permit Application Transmittal Form

Please complete this transmittal form in accordance with the instructions in order to ensure the proper handling of your application(s) and the associated fee(s). Print legibly or type.

### Part I: Applicant Information:

- \*If an applicant is a corporation, limited liability company, limited partnership, limited liability partnership, or a statutory trust, it must be registered with the Secretary of State. If applicable, applicant's name shall be stated **exactly** as it is registered with the Secretary of State.
- If an applicant is an individual, provide the legal name (include suffix) in the following format: First Name; Middle Initial; Last Name; Suffix (Jr, Sr., II, III, etc.).

Applicant: **Connecticut Department of Transportation, District 1**

Mailing Address: **1107 Cromwell Avenue**

City/Town: **Rocky Hill**

State: **CT**

Zip Code: **06067**

Business Phone: **860-258-4501**

ext.:

Fax:

Contact Person: **Ravi. V. Chandran**

Phone: **860-258-4501** ext.

E-Mail: **Ravi.Chandran@ct.gov**

Applicant (check one): ☐ individual ☐ \*business entity ☐ federal agency ☒ state agency ☐ municipality ☐ tribal

\*If a business entity, list type (e.g., corporation, limited partnership, etc.):

☐ Check if any co-applicants. If so, attach additional sheet(s) with the required information as supplied above.

Please provide the following information to be used for *billing purposes only*, if different:

Company/Individual Name:

Mailing Address:

City/Town:

State:

Zip Code:

Contact Person:

Phone:

ext.

### Part II: Project Information

Brief Description of Project: (Example: Development of a 50 slip marina on Long Island Sound)

**Replacement of Bridge No. 02374 and Rehabilitation of Bridge Nos. 02375, 02368A and 02376 within the I-84/Route 2 Mixmaster Interchange**

Location (City/Town): **East Hartford**

Other Project Related Permits (not included with this form):

Permit Description	Issuing Authority	Submittal Date	Issuance Date	Denial Date	Permit #
IW General Permit	CT DEEP	Pending			
FM General Certification	CT DOT	8/14/2014	9/9/2014		

## Part III: Individual Permit Application and Fee Information

New, Mod. or Renew	Individual Permit Applications	Initial Fees	No. of Permits Applied For	Total Initial Fees	Original + Required Copies
	<b>AIR EMISSIONS</b>				
	New Source Review	\$940.00			1 + 0
	Title V Operating Permits	none			1 + 0
	Title IV	none			1 + 0
	Clean Air Interstate Rule (CAIR)	none			1 + 0
	<b>WATER DISCHARGES</b>				
	To Groundwater	\$1300.00			1 + 1
	To Sanitary Sewer (POTW)	\$1300.00			1 + 1
	To Surface Water (NPDES)	\$1300.00			1 + 2
	<b>INLAND WATER RESOURCES-multiple permits 1 + 6 total copies</b>				
	Dam Construction	none			1 + 2
	Flood Management Certification	none			1 + 1
	Inland 401 Water Quality Certification	none			1 + 5
	Inland Wetlands and Watercourses	none			
	Stream Channel Encroachment Lines	★			
	Water Diversion	★			1 + 5
	<b>OFFICE OF LONG ISLAND SOUND PROGRAMS</b>				
	Certificate of Permission	\$375.00			1 + 3
	Coastal 401 Water Quality Certification	none			1 + 3
	Structures and Dredging/Tidal Wetlands	\$660.00			1 + 3
	<b>WASTE MANAGEMENT</b>				
	Aerial Pesticide Application	★			1 + 2
	Aquatic Pesticide Application	\$200.00			1 + 0
	CGS Section 22a-454 Waste Facilities	★			1 + 1
	Hazardous Waste Treatment, Storage and Disposal Facilities	★			1 + 1
	Marine Terminal License	\$125.00			1 + 0
	Stewardship	\$4000.00			1 + 1
	Solid Waste Facilities	★			1 + 1
	Waste Transportation	★			1 + 0
	Subtotal ➡		0	0	
	GENERAL PERMITS and AUTHORIZATIONS Subtotals Page 3 ➡		1	3,000.00	
	Enter subtotals from Part IV, pages 3 & 4 & 5 of this form Subtotals Page 4 ➡		0	0	
	Subtotals Page 5 ➡		0	0	
	<b>TOTAL ➡</b>		1	\$3,000.00	
	<input type="checkbox"/> Indicate whether municipal discount or state waiver applies. Less Applicable Discount ➡				
	<b>AMOUNT REMITTED ➡</b>				
Check # ➡	<input type="text"/>	Check or money order should be made payable to: "Department of Energy and Environmental Protection"			

★ See fee schedule on individual application.

## Part IV: General Permit Registrations and Requests for Other Authorizations

### Application and Fee Information

✓ General Permits and Other Authorizations	Initial Fees	No. of Permits Applied For	Total Initial Fees	Original + Required Copies
<b>AIR EMISSIONS</b>				
<input type="checkbox"/> Limit Potential to Emit from Major Stationary Sources of Air Pollution	\$2760.00			1 + 0
<input type="checkbox"/> Ionizing Radiation Registration	\$200.00			1 + 0
<input type="checkbox"/> Emergency/Temporary Authorization	★ ★			★ ★
<input type="checkbox"/> Other, (please specify):				
<b>WATER DISCHARGES</b>				
<input type="checkbox"/> Domestic Sewage	\$500.00			1 + 0
<input type="checkbox"/> Food Processing Wastewater	\$500.00			1 + 0
<input type="checkbox"/> Groundwater Remediation Wastewater to a Sanitary Sewer	\$500.00			1 + 0
<input type="checkbox"/> Groundwater Remediation Wastewater to a Surface Water Registration Only	\$625.00			1 + 0
<input type="checkbox"/> Approval of Registration by DEP	\$1250.00			
<input type="checkbox"/> Hydrostatic Pressure Testing Wastewater Registration Only	\$625.00			1 + 0
<input type="checkbox"/> Approval of Registration by DEP (natural gas pipelines)	\$1250.00			
<input type="checkbox"/> Miscellaneous Discharges of Sewer Compatible Wastewater Flow < 5,000 gpd and fire sprinkler system testwater	\$625.00			1 + 1
<input type="checkbox"/> Flow > 5,000 gpd	\$1250.00			
<input type="checkbox"/> Non-Contact Cooling and Heat Pump Water (Minor)	\$625.00			1 + 1
<input type="checkbox"/> Photographic Processing Wastewater (Minor)	\$100.00			1 + 0
<input type="checkbox"/> Printing & Publishing Wastewater (Minor) Flow < 40 gpd	\$500.00 \$100.00			1 + 0
<input type="checkbox"/> Stormwater Associated with Commercial Activities	\$500.00			1 + 0
<input type="checkbox"/> Stormwater Associated with Industrial Activities <500 employees—see general permit for additional requirements	\$500.00			1 + 0
<input type="checkbox"/> >500 employees—see general permit for additional requirements	\$1000.00			
<input checked="" type="checkbox"/> Stormwater & Dewatering Wastewaters-Construction Activities 5 – 10 acres	\$625.00	1	\$3,000.00	1 + 0
<input type="checkbox"/> > 10 acres	\$1250.00			
<input type="checkbox"/> Stormwater from Small Municipal Separate Storm Sewer Systems (MS4)	\$250.00			1 + 0
<input type="checkbox"/> Swimming Pool Wastewater - Public Pools and Contractors	\$500.00			1 + 0
<input type="checkbox"/> Tumbling or Cleaning of Parts Wastewater (Minor)	\$1000.00			1 + 1
<input type="checkbox"/> Vehicle Maintenance Wastewater Registration Only	\$625.00			1 + 0
<input type="checkbox"/> Approval of Registration by DEP	\$1250.00			
<input type="checkbox"/> Water Treatment Wastewater	\$625.00			1 + 0
<input type="checkbox"/> Emergency/Temporary Authorization - Discharge to POTW	\$1500.00			1 + 0
<input type="checkbox"/> Emergency/Temporary Authorization - Discharge to Surface Water	\$1500.00			1 + 0
<input type="checkbox"/> Emergency/Temporary Authorization - Discharge to Groundwater	\$1500.00			1 + 0
<input type="checkbox"/> Other, (please specify):				
Note: Carry subtotals over to Part III, page 2 of this form. Subtotal ➡		1	\$3,000.00	

★ ★ Contact the specific permit program for this information (Contact numbers are provided in the instructions).

## Part IV: General Permit Registrations and Requests for Other Authorizations (continued)

✓ General Permits and Other Authorizations	Initial Fees	No. of Permits Applied For	Total Initial Fee	Original + Required Copies
<b>AQUIFER PROTECTION PROGRAM</b>				
<input type="checkbox"/> Registration for Regulated Activities	\$625.00			1 + 0
<input type="checkbox"/> Permit Application to Add a Regulated Activity	\$1250.00			1 + 0
<input type="checkbox"/> Exemption Application from Registration	\$1250.00			1 + 0
<b>INLAND WATER RESOURCES</b>				
<input type="checkbox"/> Dam Safety Repair and Alteration	\$1000.00			1 + 2
<input type="checkbox"/> Diversion of Water for Consumptive Use: Reauthorization Categories	\$1000.00			1 + 2
<input type="checkbox"/> Diversion of Water for Consumptive Use: Authorization Required	\$2500.00			1 + 5
<input type="checkbox"/> Diversion of Water for Consumptive Use: Filing Only	\$1500.00			1 + 4
<input type="checkbox"/> Habitat Conservation	\$1000.00			1 + 2
<input type="checkbox"/> Lake, Pond and Basin Dredging	\$1000.00			1 + 2
<input type="checkbox"/> Minor Grading	\$1000.00			1 + 2
<input type="checkbox"/> Minor Structures	\$1000.00			1 + 2
<input type="checkbox"/> Utilities and Drainage	\$1000.00			1 + 2
<input type="checkbox"/> Emergency/Temporary Authorization	★ ★			★ ★
<input type="checkbox"/> Other, (please specify):				
<b>OFFICE OF LONG ISLAND SOUND PROGRAMS</b>				
<input type="checkbox"/> 4/40 Docks	\$700.00			1 + 1
<input type="checkbox"/> Beach Grading	\$100.00			1 + 1
<input type="checkbox"/> Coastal Remedial Activities Required by Order	\$700.00			1 + 1
<input type="checkbox"/> Dock Reconstruction	\$300.00			1 + 1
<input type="checkbox"/> Marina and Mooring Field Reconfiguration	\$700.00			1 + 1
<input type="checkbox"/> Non-harbor Moorings	\$100.00			1 + 1
<input type="checkbox"/> Osprey Platforms and Perch Poles	none			1 + 1
<input type="checkbox"/> Pump-out Facilities (no fee for Clean Vessel Act grant recipients)	\$100.00			1 + 1
<input type="checkbox"/> Removal of Derelict Structures	\$100.00			1 + 1
<input type="checkbox"/> Residential Flood Hazard Mitigation	\$100.00			1 + 1
<input type="checkbox"/> Swim Floats	\$100.00			1 + 1
<input type="checkbox"/> Emergency/Temporary Authorization	★ ★			★ ★
<input type="checkbox"/> Other, (please specify):				
Note: Carry subtotals over to Part III, page 2 of this form.		Subtotal	0	0

★ See fee schedule on registration/application.

★★ Contact the specific permit program for this information.

## Part IV: General Permit Registrations and Requests for Other Authorizations (continued)

✓ General Permits and Other Authorizations	Initial Fees	No. of Permits Applied For	Total Initial Fee	Original + Required Copies
<b>WASTE MANAGEMENT</b>				
<input type="checkbox"/> Addition of Grass Clippings at Registered Leaf Composting Facilities	\$500.00			1 + 0
<input type="checkbox"/> Asbestos Disposal Authorization	\$300.00			1 + 0
<b>Certain Recycling Facilities</b>				
<input type="checkbox"/> Drop-site Recycling Facility	\$200.00			1 + 0
<input type="checkbox"/> Limited Processing Recycling Facility	\$500.00			1 + 0
<input type="checkbox"/> Recyclables Transfer Facility	\$500.00			1 + 0
<input type="checkbox"/> Single Item Recycling Facility	\$500.00			1 + 0
<b>Contaminated Soil and/or Staging Management (Staging/Transfer)</b>				
<input type="checkbox"/> Registration Only	\$250.00			1 + 0
<input type="checkbox"/> Approval of Registration by DEP	\$1500.00			1 + 0
<input type="checkbox"/> Connecticut Solid Waste Demonstration Project	\$1000.00			1 + 0
<input type="checkbox"/> Disassembling Used Electronics	\$400.00			1 + 0
<input type="checkbox"/> Leaf Composting Facility	none			1 + 1
<input type="checkbox"/> Municipal Transfer Station	\$800.00			1 + 1
<input type="checkbox"/> One Day Collection of Certain Wastes and Household Hazardous Waste	\$1000.00			1 + 0
<input type="checkbox"/> Special Waste Authorization	\$660.00			1 + 0
<input type="checkbox"/> Storage and Distribution of Two (2) Inch Nominal Tire Chip Aggregate	\$500.00			1 + 0
<input type="checkbox"/> Storage and Processing of Asphalt Roofing Shingle Waste and/or Storage and Distribution of Ground Asphalt Aggregate	★			1 + 0
<input type="checkbox"/> Storage and Processing of Scrap Tires for Beneficial Use	\$1000.00			1 + 0
<input type="checkbox"/> Emergency/Temporary Authorization	★★			★★
<input type="checkbox"/> Other, (please specify):				
<b>REMEDIATION</b>				
<input type="checkbox"/> In Situ Groundwater Remediation: Enhance Aerobic Biodegradation	★			1 + 2
<b>Note: Carry subtotals over to Part III, page 2 of this form.</b>		<b>Subtotal</b> ➡	0	0

★ See fee schedule on registration/application.

★★ Contact the specific permit program for this information.

The Department of Energy and Environmental Protection is an affirmative action/equal opportunity employer and service provider. In conformance with the Americans with Disabilities Act, DEEP makes every effort to provide equally effective services for persons with disabilities. Individuals with disabilities who need this information in an alternative format, to allow them to benefit and/or participate in the agency's programs and services, should call 860-424-3035 or e-mail the ADA Coordinator at [DEP.aao@ct.gov](mailto:DEP.aao@ct.gov). Persons who are hearing impaired should call the State of Connecticut relay number 711.



**Connecticut Department of  
Energy & Environmental Protection**  
Bureau of Materials Management & Compliance Assurance  
Water Permitting & Enforcement Division

***General Permit Registration Form for the Discharge of Stormwater and Dewatering***

Prior to completing this form, you **must** read the instructions for the subject general permit available at [DEEP-WPED-INST-015](#).

This form must be filled out electronically before being printed.

You must submit the registration fee along with this form.

The [status of your registration](#) can be checked on the DEEP's ezFile Portal. Please note that DEEP will no longer mail certificates of registration.

CPPU USE ONLY	
App #:	_____
Doc #:	_____
Check #:	_____
Program: Stormwater	

**Part I: Registration Type**

Select the appropriate boxes identifying the registration type and registration deadline.

Registration Type		Registration Timeline	
<input type="checkbox"/>	<b>Re-registration</b> <b>Existing Permit No. GSN _____</b>	<b>On or before February 1, 2014*</b> *Note: Failure to renew a permit by this date will require submission of new registration. Re-registrants must only complete Parts I, II, III (except Question 8), IV - Question 1, VII and submit Attachment A.	
<input checked="" type="checkbox"/>	<b>New Registration</b> (Refer to Section 2 of the permit for definitions of Locally Exempt and Locally Approvable Projects)	<input type="checkbox"/> <b>Locally Approvable Projects</b> <b>Size of soil disturbance:</b>	<b>New registration - Sixty (60) days prior to the initiation of the construction activity for:</b> Sites with a total soil disturbance area of 5 or more acres
		<input checked="" type="checkbox"/> <b>Locally Exempt Projects</b> <b>Size of soil disturbance:</b> <b>4.98 acres</b>	<input checked="" type="checkbox"/> <b>New registration - Sixty (60) days prior to the initiation of the construction activity for:</b> Sites with a total disturbance area of one (1) to twenty (20) acres except those with discharges to impaired waters or tidal wetlands
			<input type="checkbox"/> <b>New registration - Ninety (90) days prior to the initiation of the construction activity for:</b> (i) Sites with a total soil disturbance area greater than twenty (20) acres, or (ii) Sites discharging to a tidal wetland (that is not fresh-tidal and is located within 500 feet), or (iii) Sites discharging to an impaired water listed in the "Impaired Waters Table for Construction Stormwater Discharges"

## Part II: Fee Information

1. New Registrations
  - a. Locally approvable projects (registration only):  
☐ \$625 [#1855]
  - b. Locally exempt projects (registration and Plan):  
☒ \$3,000 total soil disturbance area  $\geq$  one (1) and < twenty (20) acres. [#1856]  
☐ \$4,000 total soil disturbance  $\geq$  twenty (20) acres and < fifty (50) acres. [#1857]  
☐ \$5,000 total soil disturbance  $\geq$  fifty (50) acres. [#1858]
2. Re-Registrations  
☐ \$625 (sites previously registered prior to September 1, 2012) [#1853]  
☐ \$0 (sites previously registered between September 1, 2012 and the issuance date of this permit) [#1854]

*The fees for municipalities shall be half of those indicated in subsections 1.a., 1.b., and 2 above pursuant to section 22a-6(b) of the Connecticut General Statutes. State and Federal agencies shall pay the full fees specified in this subsection. The registration will not be processed without the fee. The fee shall be non-refundable and shall be paid by certified check or money order payable to the Department of Energy and Environmental Protection.*

## Part III: Registrant Information

- If a registrant is a corporation, limited liability company, limited partnership, limited liability partnership, or a statutory trust, it must be registered with the Secretary of the State. If applicable, the registrant's name shall be stated **exactly** as it is registered with the Secretary of the State. This information can be accessed at [CONCORD](#).
- If a registrant is an individual, provide the legal name (include suffix) in the following format: First Name; Middle Initial; Last Name; Suffix (Jr, Sr., II, III, etc.).

1. Registrant /Client Name: Connecticut Department of Transportation, District 1

**State Agency**     ↓

Secretary of the State business ID #:

Mailing Address: 1107 Cromwell Avenue

City/Town: Rocky Hill

State: CT

Zip Code: 06067

Business Phone: 860-258-4601

ext.:

*Example:(xxx) xxx-xxxx*

Contact Person: Ravi V. Chandran

Title: Dist. 1 Eng.

E-Mail: **Ravi.Chandran@ct.gov**

Additional Phone Number (if applicable):

ext.

2. List billing contact, if different than the registrant:

Name:

Mailing Address:

City/Town:

State:

Zip Code:

Business Phone:

ext.:

Contact Person:

Title:

### Part III: Registrant Information (continued)

3. List primary contact for departmental correspondence and inquiries, if different than the registrant:

Name:

Mailing Address:

City/Town:

State:

Zip Code:

Business Phone:

ext.:

Site Phone:

Emergency Phone:

Contact Person:

Title:

Association (e.g. developer, general or site contractor, etc.):

4. List owner of the property on which the activity will take place, if different from registrant:

Name:

Mailing Address:

City/Town:

State:

Zip Code:

Business Phone:

ext.:

Contact Person:

5. List developer, if different from registrant or primary contact:

Name:

Mailing Address:

City/Town:

State:

Zip Code:

Business Phone:

ext.:

Contact Person:

Title:

6. List general contractor, if different from registrant or primary contact:

Name:

Mailing Address:

City/Town:

State:

Zip Code:

Business Phone:

ext.:

Site Phone:

Off Hours Phone:

Contact Person:

Title:

7. List any engineer(s) or other consultant(s) employed or retained to assist in preparing the registration and/or Stormwater Pollution Control Plan. ☐ Please select if additional sheets are necessary, and label and attach them to this sheet.

Name: BL Companies (Business ID 0188407)

Mailing Address: 150 Trumbull Street, 6<sup>th</sup> Floor

City/Town: Hartford

State: CT

Zip Code: 06103

Business Phone: 860-249-2200

ext.: 1921

Contact Person: Nicholas R. Giardina

Title: Project Manager

Service Provided: **Consultant Liaison Engineer, Preparation of SPCP**

8. List Reviewing Qualified Professional (for locally approvable projects only):

Name:

Contact Person:

Mailing Address:

City/Town:

State:

Zip Code:

Business Phone:

ext.:



## Part IV: Site Information

1. Site Name: Bridge Nos. 02374, 02375, 02368A and 02376

Street Address or Description of Location: I-84/Route 2 Mixmaster Interchange

City/Town: East Hartford

State: CT

Zip Code: 06108

Brief Description of construction activity: Replacement of Bridge No. 02374, Rehabilitation of Bridge Nos. 02375, 02386A and 02376

Project Start Date: 04 / 2015

Anticipated Completion Date: 11 / 2016

(month/ yr)

(month/ yr)

Normal working hours: **Monday thru Friday, 7:30 to 4:00**

2. MINING: Is the activity on the site in question part of mining operations (i.e. sand and gravel)? ☐ Yes ☒ No

If yes, mining is not authorized by this general permit. You must submit the Registration Form for the General Permit for the Discharge of Stormwater Associated with Industrial Activity.

3. COMBINED OR SANITARY SEWER: Does all of the stormwater from the proposed activity discharge to a combined or sanitary sewer (i.e. a sewage treatment plant)? ☐ Yes ☒ No

If yes, this activity is not regulated by this permit. Contact the Water Permitting & Enforcement Division at 860-424-3018.

4. INDIAN LANDS: Is or will the facility be located on federally recognized Indian lands ☐ Yes ☒ No

5. COASTAL BOUNDARY: Is the activity which is the subject of this registration located within the coastal boundary as delineated on DEEP approved coastal boundary maps ☐ Yes ☒ No

The coastal boundaries fall within the following towns: Branford, Bridgeport, Chester, Clinton, Darien, Deep River, East Haven, East Lyme, Essex, Fairfield, Greenwich, Groton (City and Town), Old Lyme, Guilford, Hamden, Ledyard, Lyme, Madison, Milford, Montville, New London, New Haven, North Haven, Norwalk, Norwich, Old Saybrook, Orange, Preston, Shelton, Stamford, Stonington (Borough and Town), Stratford, Waterford, West Haven, Westbrook and Westport.

If "yes", and this registration is for a new authorization or a modification of an existing authorization where the physical footprint of the subject activity is modified, you must provide documentation the DEEP Office of Long Island Sound Programs or the local governing authority has issued a coastal site plan approval or determined the project is exempt from coastal site plan review. Provide this documentation with your registration as Attachment B. See guidance in Appendix D of the general permit. Information on the coastal boundary is available at the local town hall or at [www.cteco.uconn.edu/map\\_catalog.asp](http://www.cteco.uconn.edu/map_catalog.asp). Additional DEEP Maps and Publications are available by contacting DEEP staff at 860-424-3555.

## Part IV: Site Information (continued)

### 6. ENDANGERED OR THREATENED SPECIES:

In order to be eligible to register for this General Permit, each registrant must perform a self-assessment, obtain a limited one-year determination, or obtain a safe-harbor determination regarding threatened and endangered species. This may include the need to develop and implement a mitigation plan. While each alternative has different limitations, the alternatives are not mutually exclusive; a registrant may register for this General Permit using more than one alternative. See Appendix A of the General Permit. Each registrant must complete this section AND Attachment C to this Registration form and a registrant who does not or cannot do so is not eligible to register under this General Permit.

Each registrant must perform a review of the Department's Natural Diversity Database maps to determine if the site of the construction activity is located within or in proximity (within ¼ mile) to a shaded area.

- a. Provide the date the NDDDB maps were reviewed: December 2014 (Print a copy of the NDDDB map you viewed since it must be submitted with this registration as part of Attachment C.)
- b. For a registrant using a limited one-year determination or safe harbor determination to register for this General Permit, provide the Department's Wildlife Division NDDDB identification number for any such determination: \_\_\_\_\_ (The number is on the determination issued by the Department's Wildlife Division).
- c. verify that I have completed Attachment C to this Registration Form. ☒ Yes

For more information on threatened and endangered species requirements, refer to Appendix A and Section 3(b)(2) of this General Permit, visit the DEEP website at [www.ct.gov/deep/nddbrequest](http://www.ct.gov/deep/nddbrequest) or call the NDDDB at 860-424-3011.

7. WILD AND SCENIC RIVERS: Is the proposed project within the watershed of a designated Wild and Scenic River? ( See Appendix H for guidance) ☐ Yes ☒ No
8. AQUIFER PROTECTION AREAS: Is the site located within a mapped aquifer protection area [www.ct.gov/deep/aquiferprotection](http://www.ct.gov/deep/aquiferprotection) as defined in section 22a-354h of the CT General Statutes? (For additional guidance, please refer to Appendix C of the General Permit) ☐ Yes ☒ No
9. CT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL: Is the activity in accordance with CT Guidelines for Erosion and Sediment Control and local erosion & sediment control ordinances, where applicable? ☒ Yes ☐ No
10. HISTORIC AND/OR ARCHAEOLOGICAL RESOURCES:  
Has the site of the proposed activity been reviewed (using the process outlined in Appendix G of this permit) for historic and/or archaeological resources? ☒ Yes ☐ No
  - a. The review indicates the proposed site does not have the potential for historic/ archaeological resources, OR ☒ Yes ☐ No
  - b. The review indicated historic and/ or archaeological resource potential exists and the proposed activity is being or has been reviewed by the Offices of Culture and Tourism, OR ☐ Yes ☒ No
  - c. The proposed activity has been reviewed and authorized under an Army Corps of Engineers Section 404 wetland permit. ☐ Yes ☒ No
11. CONSERVATION OR PRESERVATION RESTRICTION:  
Is the property subject to a conservation or preservation restriction? ☐ Yes ☒ No

If Yes, proof of written notice of this registration to the holder of such restriction or a letter from the holder of such restriction verifying that this registration is in compliance with the terms of the restriction, must be submitted as Attachment D.

## Part V: Stormwater Discharge Information

Table 1						
Outfall #	a) Type	b) Pipe Material	c) Pipe Size	d) Note: To find lat/long, go to: <a href="#">CT ECO</a> . A decimal format is required here. Directions on how to use CT ECO to find lat./long. and conversions can be found in Part V, Section d of the <a href="#">DEEP-WPED-INST-015</a> .		e) What method was used to obtain your latitude/longitude information?
				Longitude	Latitude	
EO-1	pipe	concrete	36"	-7 2.6 5 3 7 5	4 1.7 6 4 4 7	CT ECO
EO-2	pipe	metal	15"	-7 2.6 5 2 8 2	4 1.7 6 4 2 4	CT ECO
EO-3	pipe	concrete	18"	-7 2.6 5 1 6 2	4 1.7 6 5 4 3	CT ECO
	Select One:	Select One:	Select One:	- .	. . . . .	Select One:
	Select One:	Select One:	Select One:	- .	. . . . .	Select One:

Table 2						
Outfall #	a) For temporary and permanent outfalls, provide a start date. For temporary discharges, also provide a date the discharge will cease.	b) For the drainage area associated with each outfall: Effective Impervious Area Before Construction	c) For the drainage area associated with each outfall: Effective Impervious Area After Construction	d) To what system or receiving water does your stormwater runoff discharge? either "storm sewer" or "wetlands/waterbody" (If you select "storm sewer" proceed to Part VI of the form. If you select "wetlands/waterbody" proceed to next question)	e) For each outfall, does it discharge to any of the following towns: <i>Branford, Kent, Manchester, Meriden, North Branford, Norwalk, or Wilton?</i> (If no, proceed to Part VI of the form. If yes, proceed to next question.)	f) For each outfall, does it discharge to a "freshwater" or "salt water"? (If you select "freshwater" proceed to Table 3. If you selected "salt water", proceed to Part VI of the form.)
EO-1	04/15-mm/dd-mm/dd	242,734 sq feet	241,429 sq feet	wetlands/waterbody	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Select one:
EO-2	04/15-mm/dd-mm/dd	15,497 sq feet	15,497 sq feet	wetlands/waterbody	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Select one:
EO-3	04/15-mm/dd-mm/dd	84,339 sq feet	84,339 sq feet	wetlands/waterbody	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Select one:
TO-1	06/15-09/16 mm/dd-mm/dd	20,982 sq feet	20,982 sq feet	wetlands/waterbody	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Select one:
TO-2	06/15-09/16 mm/dd-mm/dd	16,973 sq feet	16,973 sq feet	Select one:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Select one:
		<b>342,570 total sq feet</b>	<b>341,265 total sq feet</b>			

## Part V: Stormwater Discharge Information

Table 1						
Outfall #	a) Type	b) Pipe Material	c) Pipe Size	d) Note: To find lat/long, go to: <a href="#">CT ECO</a> . A decimal format is required here. Directions on how to use CT ECO to find lat./long. and conversions can be found in Part V, Section d of the <a href="#">DEEP-WPED-INST-015</a> .		e) What method was used to obtain your latitude/longitude information?
				Longitude	Latitude	
<input type="text"/>	Select One: <input type="text"/>	Select One: <input type="text"/>	Select One: <input type="text"/>	- <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	Select One: <input type="text"/>
<input type="text"/>	Select One: <input type="text"/>	Select One: <input type="text"/>	Select One: <input type="text"/>	- <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	Select One: <input type="text"/>
<input type="text"/>	Select One: <input type="text"/>	Select One: <input type="text"/>	Select One: <input type="text"/>	- <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	Select One: <input type="text"/>
<input type="text"/>	Select One: <input type="text"/>	Select One: <input type="text"/>	Select One: <input type="text"/>	- <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	Select One: <input type="text"/>
<input type="text"/>	Select One: <input type="text"/>	Select One: <input type="text"/>	Select One: <input type="text"/>	- <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	Select One: <input type="text"/>

Table 2						
Outfall #	a) For temporary and permanent outfalls, provide a start date. For temporary discharges, also provide a date the discharge will cease.	b) For the drainage area associated with each outfall: Effective Impervious Area Before Construction	c) For the drainage area associated with each outfall: Effective Impervious Area After Construction	d) To what system or receiving water does your stormwater runoff discharge? either "storm sewer" or "wetlands/waterbody" (If you select "storm sewer" proceed to Part VI of the form. If you select "wetlands/waterbody" proceed to next question)	e) For each outfall, does it discharge to any of the following towns: <i>Branford, Kent, Manchester, Meriden, North Branford, Norwalk, or Wilton?</i> (If no, proceed to Part VI of the form. If yes, proceed to next question.)	f) For each outfall, does it discharge to a "freshwater" or "salt water"? (If you select "freshwater" proceed to Table 3. If you selected "salt water", proceed to Part VI of the form.)
TO-3	06/15-09/16 mm/dd-mm/dd	109,987 sq feet	109,987 sq feet	wetlands/waterbody	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Select one:
PO-1	09/16- mm/dd-mm/dd	sq feet	20,982 sq feet	wetlands/waterbody	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Select one:
PO-2	09/16- mm/dd-mm/dd	sq feet	16,973 sq feet	wetlands/waterbody	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Select one:
PO-3	09/16- mm/dd-mm/dd	sq feet	93,337 sq feet	wetlands/waterbody	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Select one:
PO-4	09/16- mm/dd-mm/dd	sq feet	16,650 sq feet	Select one:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Select one:
		<b>total sq feet</b>	<b>total sq feet</b>			

**Part V: Stormwater Discharge Information (continued)**

<b>Table 3</b> Provide the following information about the receiving water(s)/wetland(s) that receive stormwater runoff from your site:			
Outfall #	a) What is your 305b ID # (water body ID #)?  (Section 3.b, of the <a href="#">DEEP-WPED-INST-015</a> , explains how to find this information)	b) Is your receiving water identified as a impaired water in the " <a href="#">Impaired Waters Table for Construction Stormwater Discharges</a> "? If yes, proceed to next question. If no, proceed to Part VI: Pollution Control Plan.	c) Has any Total Maximum Daily Load (TMDL) been approved for the impaired water?
<input type="text"/>	<input type="text"/>	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N
<input type="text"/>	<input type="text"/>	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N
<input type="text"/>	<input type="text"/>	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N
<input type="text"/>	<input type="text"/>	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N
<input type="text"/>	<input type="text"/>	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N

## Part V: Stormwater Discharge Information (continued)

**Impaired waters:** If you answered "yes" to Table 3, question b., **verify** that the project's Pollution Control Plan (Plan) addresses the control measures below in Question 1 or 2, as appropriate.

**1. If the impaired water does not have a TMDL**, confirm compliance by selecting 1.a. or 1.b. below:

a. No more than 3 acres is disturbed at any time; ☐ Yes

**OR**

b. Stormwater runoff from a 2 yr, 24 rain event is **retained**. ☐ Yes

**2. If the impaired water has a TMDL**, confirm compliance by selecting 2.a. and 2.b. below and either question 2.c.1. or 2.c.2. below:

a. The Plan documents there is sufficient remaining Waste Load Allocations (WLA) in the TMDL for the proposed discharge, ☐ Yes

**AND**

b. Control measures shall be implemented to assure the WLA will not be exceeded, ☐ Yes

**AND**

c. 1. Stormwater discharges will be monitored for the indicator pollutant identified in the TMDL, ☐ Yes

**OR**

2. The Plan documents specific requirements for stormwater discharges specified in the TMDL. ☐ Yes

## Part VI: Pollution Control Plan (select one of the following four categories)

- ☐ I am registering a Locally Exempt project and submitting the required electronic Plan (in Adobe™ PDF or similar publically available format) pursuant to Section 3(c)(2)(E) of this permit.
- ☐ Plan is attached to this registration form
- ☐ Plan is available at the following Internet Address (URL):
- ☐ I am registering a Locally Approvable project and have chosen not to submit the Plan with this registration pursuant to Section 3(c)(1) of this permit.
- ☐ I am registering a Locally Approvable project and have chosen to make my Plan electronically available pursuant to Section 4(c)(2)(N) of this permit.
- ☐ Plan is attached to this registration form
- ☐ Plan is available at the following Internet Address (URL):
- ☒ I am registering a Locally Exempt project and do not have the capability to submit the Plan electronically. Therefore, I am submitting a paper copy with this registration as Attachment E.



## Part VII: Registrant Certification

The registrant and the individual(s) responsible for actually preparing the registration must sign this part. A registration will be considered incomplete unless all required signatures are provided.

### For New Registrants:

"I hereby certify that I am making this certification in connection with a registration under such general permit,  
[INSERT NAME OF REGISTRANT BELOW]

submitted to the commissioner by Ravi V. Chandran, District 1 Engineer for  
[INSERT ADDRESS OF PROJECT OR ACTIVITY BELOW]

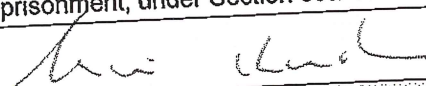

an activity located at I-84/Route 2 Mixmaster Interchange, East Hartford and that all terms and conditions of the general permit are being met for all discharges which have been initiated and such activity is eligible for authorization under such permit. I further certify that a system is in place to ensure that all terms and conditions of this general permit will continue to be met for all discharges authorized by this general permit at the site. I certify that the registration filed pursuant to this general permit is on complete and accurate forms as prescribed by the commissioner without alteration of their text. I certify that I have personally examined and am familiar with the information that provides the basis for this certification, including but not limited to all information described in Section 3(b)(8)(A) of such general permit, and I certify, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining such information, that the information upon which this certification is based is true, accurate and complete to the best of my knowledge and belief. I certify that I have made an affirmative determination in accordance with Section 3(b)(8)(B) of this general permit. I understand that the registration filed in connection with such general permit is submitted in accordance with and shall comply with the requirements of Section 22a-430b of Connecticut General Statutes. I also understand that knowingly making any false statement made in the submitted information and in this certification may be punishable as a criminal offense, including the possibility of fine and imprisonment, under Section 53a-157b of the Connecticut General Statutes and any other applicable law."

### For Re-registrants:

"I hereby certify that I am making this certification in connection with a registration under the General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities, submitted to the commissioner  
[INSERT NAME OF REGISTRANT BELOW]

by [INSERT ADDRESS OF PROJECT OR ACTIVITY BELOW] for an activity located at



and that all terms and conditions of the general permit are being met for all discharges which have been initiated and such activity is eligible for authorization under such permit. I further certify that all designs and plans for such activity meet the current terms and conditions of the general permit in accordance with Section 5(b)(5)(C) of such general permit and that a system is in place to ensure that all terms and conditions of this general permit will continue to be met for all discharges authorized by this general permit at the site. I certify that the registration filed pursuant to this general permit is on complete and accurate forms as prescribed by the commissioner without alteration of their text. I certify that I have personally examined and am familiar with the information that provides the basis for this certification, including but not limited to all information described in Section 3(b)(8)(A) of such general permit, and I certify, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining such information, that the information upon which this certification is based is true, accurate and complete to the best of my knowledge and belief. I also understand that knowingly making any false statement made in the submitted information and in this certification may be punishable as a criminal offense, including the possibility of fine and imprisonment, under Section 53a-157b of the Connecticut General Statutes and any other applicable law."

	1/14/2015
Signature of Registrant	Date
Ravi V. Chandran	District 1 Engineer
Name of Registrant (print or type)	Title (if applicable)
	1-6-2015
Signature of Preparer (if different than above)	Date
Nicholas R. Giardina	Project Manager, BL Companies
Name of Preparer (print or type)	Title (if applicable)



**Part VIII: Professional Engineer (or Landscape Architect, where appropriate) Design Certification**  
**(for publically approvable and exempt projects)**

The following certification must be signed by a Professional Engineer or Landscape Architect where appropriate.

<p>"I hereby certify that I am a professional engineer licensed in the State of Connecticut. I am making this certification in connection with a registration under such general permit, submitted to the commissioner by          [INSERT NAME OF REGISTRANT BELOW]          Nicholas R. Giardina, BL Companies for an activity located at          [INSERT ADDRESS OF PROJECT OR ACTIVITY BELOW]          I-84/Route 2 Mixmaster Interchange, East Hartford</p> <p>I certify that I have thoroughly and completely reviewed the Stormwater Pollution Control Plan for the project or activity covered by this certification. I further certify, based on such review and on the standard of care for such projects, that the Stormwater Pollution Control Plan has been prepared in accordance with the Connecticut Guidelines for Soil Erosion and Sediment Control, as amended, the Stormwater Quality Manual, as amended, and the conditions of the general permit, and that the controls required for such Plan are appropriate for the site. I further certify, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining such information, that the information upon which this certification is based is true, accurate, and complete to the best of my knowledge and belief. I also understand that knowingly making any false statement in this certification may subject me to sanction by the Department and/or be punishable as a criminal offense, including the possibility of fine and imprisonment, under section 53a-157b of the Connecticut General Statutes and any other applicable law."</p>	
 Signature of Design Professional	1-6-2015 Date
Nicholas R. Giardina Name of Professional (print or type)	Project Manager, BL Companies Title
150 Trumbull Street, 6 <sup>th</sup> Floor Mailing Address	Hartford City/Town
CT 06103 State Zip Code	860-249-2200, ext.: 1921 Business Phone
	14728 License #
	Affix P.E./L.A Stamp Here



## Part IX: Reviewing Qualified Professional Certification

The following certification must be signed by a) a Conservation District reviewer OR, b) a qualified soil erosion and sediment control and/or professional engineer

☐ **Review certification by Conservation District:**

1.) District: list of districts

Date of Affirmative Determination:

"I am making this certification in connection with a registration under General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities, submitted to the commissioner

[INSERT NAME OF REGISTRANT BELOW]

by

for an activity located at

[INSERT ADDRESS OF PROJECT OR ACTIVITY BELOW]

I have personally examined and am familiar with the information that provides the basis for this certification, and I affirm, based on the review described in Section 3(b)(11)(C) of this general permit and on the standard of care for such projects, that the Stormwater Pollution Control Plan is adequate to assure that the activity authorized under this general permit will comply with the terms and conditions of such general permit and that all stormwater management systems: (i) have been designed to control pollution to the maximum extent achievable using measures that are technologically available and economically practicable and that conform to those in the Guidelines and the Stormwater Quality Manual; (ii) will function properly as designed; (iii) are adequate to ensure compliance with the terms and conditions of this general permit; and (iv) will protect the waters of the state from pollution."

\_\_\_\_\_  
Signature of District Professional and Date

\_\_\_\_\_  
Name of District Professional and License Number (if applicable)

**Or**

☐ **Review certification by Qualified Professional**

Company: \_\_\_\_\_

Name: \_\_\_\_\_

License # : \_\_\_\_\_

**Level of independency of professional:**

**Required for all projects disturbing over 1 acre:**

1. I verify I am not an employee of the registrant. ☐ Yes
2. I verify I have no ownership interest of any kind in the project for which the registration is being submitted. ☐ Yes

**Required for projects with 15 or more acres of site disturbance ( in addition to questions 1&2):**

3. I verify I did not engage in any activities associated with the preparation, planning, designing or engineering of the soil erosion and sediment control plan or stormwater management systems plan for this registrant. ☐ Yes
4. I verify I am not under the same employ as any person associated with the preparation, planning, designing or engineering of the soil erosion and sediment control plan or stormwater management systems plan for this registrant. ☐ Yes

**Part IX: Reviewing Qualified Professional Certification (continued)**

"I hereby certify that I am a qualified professional engineer or qualified soil erosion and sediment control professional, or both, as defined in the General Permit for Discharge of Stormwater and Dewatering Wastewaters from Construction Activities and as further specified in Sections 3(b)(11)(A) and (B) of such general permit. I am making this certification in connection with a registration under such general permit,

[INSERT NAME OF REGISTRANT BELOW]

submitted to the commissioner by

[INSERT ADDRESS OF PROJECT OR ACTIVITY BELOW]

for an activity located at

I have personally examined and am familiar with the information that provides the basis for this certification, including but not limited to all information described in Section 3(b)(11)(C) of such general permit, and I certify, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining such information, that the information upon which this certification is based is true, accurate and complete to the best of my knowledge and belief. I further certify that I have made the affirmative determination in accordance with Sections 3(b)(11)(D)(i) and (ii) of this general permit. I understand that this certification is part of a registration submitted in accordance with Section 22a-430b of Connecticut General Statutes and is subject to the requirements and responsibilities for a qualified professional in such statute. I also understand that knowingly making any false statement in this certification may be punishable as a criminal offense, including the possibility of fine and imprisonment, under Section 53a-157b of the Connecticut General Statutes and any other applicable law."

\_\_\_\_\_  
Signature of Reviewing Qualified Professional

Date: \_\_\_\_\_

\_\_\_\_\_  
Name of Reviewing Qualified Professional

License No.: \_\_\_\_\_

Affix P.E./L.A. Stamp Here

## Part X: Supporting Documents

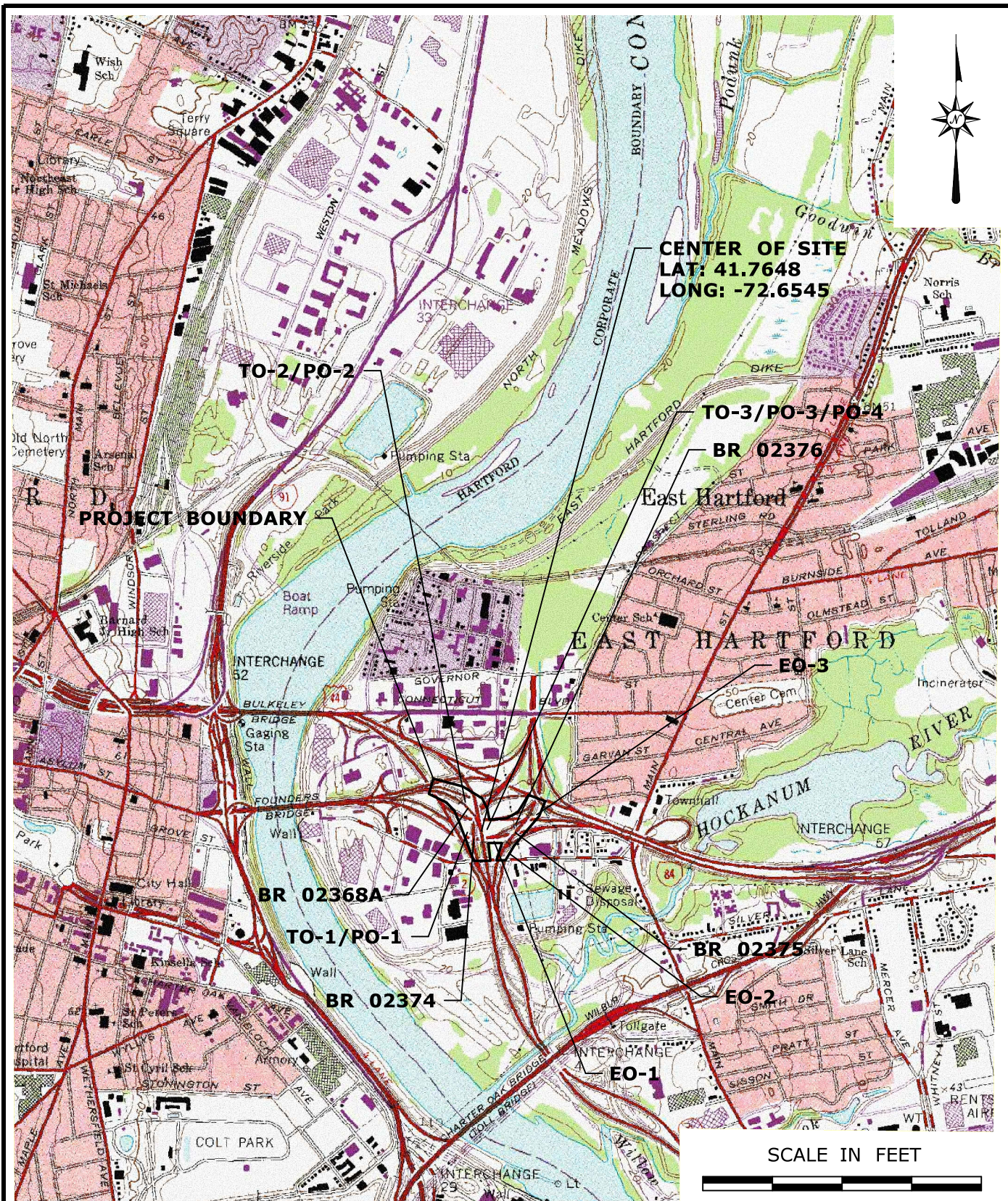
Select the applicable box below for each attachment being submitted with this registration form. When submitting any supporting documents, please label the documents as indicated below (e.g., Attachment A, etc.) and be sure to include the registrant's name as indicated on this certification form.

- ☒ **Attachment A:** Select here as verification that an 8 ½" X 11" copy of the relevant portion of a USGS Quadrangle Map with a scale of 1:24,000, showing the exact location of the facility has been submitted with this registration. Indicate the quadrangle name on the map, and be sure to include the registrant's name. (To obtain a copy of the relevant USGS Quadrangle Map, call your town hall or DEEP Maps and Publications Sales at 860-424-3555)
- ☐ **Attachment B:** Documentation related to *Coastal Consistency Review*, if applicable.
- ☒ **Attachment C:** Threatened and Endangered Species Form and any additional information (such as a copy of a NDDB map)
- ☐ **Attachment D:** Conservation or Preservation Restriction Information, if applicable.
- ☒ **Attachment E:** Where applicable, non-electronic Pollution Control Plan.

Note: Please submit the fee along with a completed, printed and signed Registration Form and all additional supporting documents to:

**CENTRAL PERMIT PROCESSING UNIT  
DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION  
79 ELM STREET  
HARTFORD, CT 06106-5127**





REGISTRANT: STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION  
RAVI V. CHANDRAN, DISTRICT 1 ENGINEER

SCALE IN FEET



GRAPHIC SCALE

BRIDGE NO.: 02374, 02375,  
02376, 02368A

DATE: JANUARY 2015

SCALE: 1" = 2000'



I-84/ROUTE 2 MIXMASTER  
INTERCHANGE  
EAST HARTFORD, CONNECTICUT

SPCP ATTACHMENT A

USGS PROJECT  
LOCATION MAP



# ATTACHMENT C: THREATENED AND ENDANGERED SPECIES

Information about compliance with the requirements of Section 3(b)(2) of this general permit, regarding threatened and endangered species, is in Appendix A of the general permit. Choose one or more (if applicable) of the following in order to be eligible to register for this General Permit. A registrant who does not or cannot do so is not eligible to register under this General Permit.

☒ Self Assessment using the NDDDB maps – Select this only if:

- a. The site of the construction activity is not entirely, partially or within a ¼ mile of a shaded area depicted on the Department's Natural Diversity Database maps and this determination was made not more than six months before the date of submitting this registration;

AND

- b. The entity registering for this General Permit has no reasonably available verifiable scientific, or other credible information that the construction activity could reasonably be expected to have an adverse impact upon a federal or state species listed as threatened or endangered.

Attach a copy of the NDDDB map used to conduct the self assessment used to register for this general permit.

Note: Both a and b as used in this section, must be true in order for a Registrant to register for this General Permit using the self-assessment option. If neither is true, a Registrant cannot use the self-assessment option to comply with Section 3(b)(2) and Appendix A of the General Permit.

☐ Limited One-Year Determination – Select this only if:

- a. The entity registering for this General Permit has obtained a limited one-year determination from the Department's Wildlife Division regarding threatened and endangered species: i) within a year of the date of submitting this registration; or ii) more than 1 year before submitting this registration, but such determination has been extended by the Department within one year of the date of submitting this registration;

AND

- b. The Registrant has provided to the Department's Wildlife Division any reasonably available verifiable scientific, or other credible information that the construction activity could reasonably be expected to have an adverse impact upon a federal or state species listed as threatened or endangered.

Provide the date the limited one-year determination was issued by the Department's Wildlife Division \_\_\_\_\_;

or

Provide the date that the most recent extension to a limited one year determination was issued by the Department's Wildlife Division \_\_\_\_\_.

Note: Both a and b as used in this section, must be true in order for a Registrant to register for this General Permit using the Limited One-Year Determination option. If a Limited One-Year Determination or extension to any such determination was issued by the Department's Wildlife Division more than one year before the submission of this registration, a Registrant cannot use any such determination or extension to comply with Section 3(b)(2) and Appendix A of the General Permit.

# ATTACHMENT C: THREATENED AND ENDANGERED SPECIES (continued)

- ☐ **Select here if the Limited One-Year Determination issued by the Department includes a Mitigation Plan.**

Provide the date the Mitigation Plan was approved: \_\_\_\_\_

Governmental Entity Approving the Plan: \_\_\_\_\_

**As of the date this Registration is submitted,**

Has the Mitigation Plan been fully implemented? ☐ Yes ☐ No

Date commenced: \_\_\_\_\_ Date completed: \_\_\_\_\_

Is the Mitigation Plan partially implemented? ☐ Yes ☐ No

If yes, what actions have been taken? \_\_\_\_\_

And which actions are yet to be implemented and what is the timeframe for completion of such actions: \_\_\_\_\_

Is the Mitigation Plan yet to be implemented? ☐ Yes ☐ No

If yes, specify the timeframe for implementation: \_\_\_\_\_ to \_\_\_\_\_

And summarize actions to be implemented: \_\_\_\_\_

- ☐ **Safe Harbor Determination - Select this only if:**

- a. The entity registering for this General Permit has obtained a Safe Harbor Determination from the Department's Wildlife Division regarding threatened and endangered species: i) within 3 years of the date of submitting this registration; or ii) more than 3 years before submitting this registration, but within one-year of a one-year extension issued by the Department's Wildlife Division to a safe harbor determination;

AND

- b. The entity registering for this General Permit has provided to the Department's Wildlife Division any reasonably available verifiable scientific, or other credible information that the construction activity could reasonably be expected to have an adverse impact upon a federal or state species listed as threatened or endangered.

Provide the date the Department's Wildlife Division issued a Safe Harbor Determination: \_\_\_\_\_

If applicable, provide the date that any one-year extension to a Safe Harbor Determination was issued by the Department's Wildlife Division: \_\_\_\_\_.

Note: Both a and b as used in this section, must be true in order for a Registrant to register for this General Permit using the Safe Harbor Determination option. If a Safe Harbor Determination was issued by the Department's Wildlife Division more than three years before the submission of this registration, and has not been extended, a Registrant cannot use any such safe harbor to comply with section 3(b)(2) and Appendix A of this General Permit. If a Safe Harbor Determination was granted and extended for one-year, more than four years before the submission of this registration, a Registrant cannot use any such Safe Harbor Determination to comply with Section 3(b)(2) and Appendix A of the general permit.

## ATTACHMENT C: THREATENED AND ENDANGERED SPECIES (continued)

- ☐ **Select here if the safe harbor noted above includes a Mitigation Plan.**

Provide the date the Mitigation Plan was approved: \_\_\_\_\_

Governmental Entity Approving the Plan: \_\_\_\_\_

**As of the date this Registration is submitted,**

Has the Mitigation Plan been fully implemented? ☐ Yes ☐ No

Date commenced: \_\_\_\_\_ Date completed: \_\_\_\_\_

Is the Mitigation Plan partially implemented? ☐ Yes ☐ No

If yes, what actions have been taken? \_\_\_\_\_

And which actions are yet to be implemented and what is the timeframe for completion of such actions: \_\_\_\_\_

Is the Mitigation Plan yet to be implemented? ☐ Yes ☐ No


If yes, specify the timeframe for implementation: \_\_\_\_\_ to \_\_\_\_\_

And summarize actions to be implemented: \_\_\_\_\_

# Natural Diversity Data Base Areas

EAST HARTFORD, CT

December 2014

 State and Federal Listed Species  
& Significant Natural Communities

 Town Boundary

NOTE: This map shows general locations of State and Federal Listed Species and Significant Natural Communities. Information on listed species is collected and compiled by the Natural Diversity Data Base (NDDB) from a number of data sources. Exact locations of species have been buffered to produce the general locations. Exact locations of species and communities occur somewhere in the shaded areas, not necessarily in the center. A new mapping format is being employed that more accurately models important riparian and aquatic areas and eliminates the need for the upstream/downstream searches required in previous versions.

This map is intended for use as a preliminary screening tool for conducting a Natural Diversity Data Base Review Request. To use the map, locate the project boundaries and any additional affected areas. If the project is within a shaded area there may be a potential conflict with a listed species. For more information, complete a Request for Natural Diversity Data Base State Listed Species Review form (DEP-APP-007), and submit it to the NDDB along with the required maps and information. More detailed instructions are provided with the request form on our website.

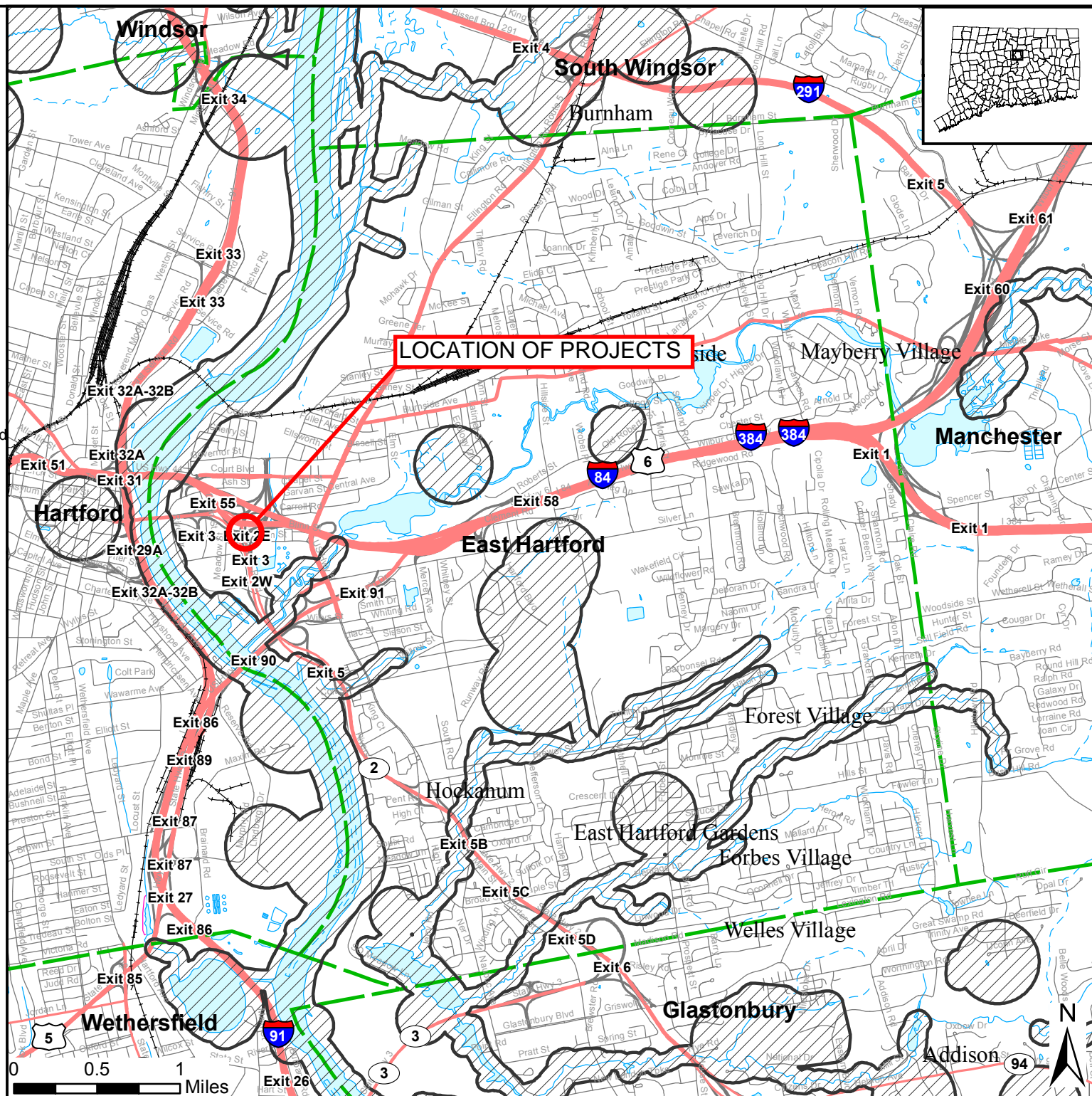
[www.ct.gov/deep/nddbrequest](http://www.ct.gov/deep/nddbrequest)

Use the CTECO Interactive Map Viewers at [www.cteco.uconn.edu](http://www.cteco.uconn.edu) to more precisely search for and locate a site and to view aerial imagery with NDDB Areas.

QUESTIONS: Department of Energy and Environmental Protection (DEEP)  
79 Elm St., Hartford CT 06106  
Phone (860) 424-3011



Connecticut Department of  
Energy & Environmental Protection  
Bureau of Natural Resources  
Wildlife Division





**GENERAL PERMIT FOR THE DISCHARGE OF  
STORMWATE AND DEWATERING WASTEWATERS  
FROM CONSTRUCTION ACTIVITIES**

**ATTACHMENT E  
STORMWATER POLLUTION CONTROL PLAN**

**I-84/Route 2 Mixmaster Interchange  
East Hartford, CT**

**State Project Nos.**

**42-304 (Replacement of Bridge No. 02374)  
42-305 (Rehabilitation of Bridge No. 02375)  
42-310 (Rehabilitation of Bridge No. 02368A)  
42-316 (Rehabilitation of Bridge No. 02376)**

**Connecticut Department of Transportation**

January 2015

This Stormwater Pollution Control Plan (SPCP) is prepared to comply with the requirements for the General Permit for Stormwater Discharges (GPSD) from Construction Activities. Also to be considered part of the SPCP are the proposed construction plans, special provisions, and the Connecticut Department of Transportation's "Standard Specifications for Roads, Bridges and Incidental Construction" (Form 816) including supplements thereto and the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control

## Table of Contents

<b>1. Site Description .....</b>	<b>3</b>
Estimated Disturbed Area.....	5
Estimated Runoff Coefficient.....	5
Receiving Waters.....	6
Extent of Wetlands on Site .....	6
<b>2. Construction Sequencing .....</b>	<b>7</b>
<b>3. Control Measures.....</b>	<b>8</b>
Erosion and Sedimentation Controls .....	8
Temporary Stabilization Practices .....	9
Permanent Stabilization Practices .....	9
Structural Measures .....	10
Maintenance.....	10
<b>4. Dewatering Wastewaters.....</b>	<b>10</b>
Dewatering Guidelines .....	10
<b>5. Post-Construction Stormwater Management.....</b>	<b>11</b>
Post Construction Performance Standards .....	11
<b>6. Other Controls .....</b>	<b>11</b>
Waste Disposal .....	11
Washout Areas.....	12
Anti-Tracking Pads and Dust Control .....	12
Post-Construction .....	13
Maintaining and Storing Vehicles, Equipment and Products.....	13
<b>7. Inspections .....</b>	<b>13</b>
<b>8. Keeping Plans Current .....</b>	<b>14</b>
Revisions to Stormwater Pollution Control Plans: .....	14
<b>9. Monitoring Requirements .....</b>	<b>15</b>
<b>10. Contractors.....</b>	<b>17</b>
General.....	17
Certification Statement .....	17

### Appendix A

Project Figures and Plans

### Appendix B

Stormwater Monitoring Report

Notice of Termination Form

### Appendix C

Stormwater Calculations

Outlet Protection Calculations

### Appendix D

NRCS Soil Resource Report

## **1. Site Description**

---

The project area is comprised of four (4) State Bridge Projects: 42-304, 42-305, 42-310, and 42-316. The bridges are part of the complex directional interchange (I-84/Route 2 Mixmaster) located at the junction of I-84 and Route 2 in the town of East Hartford. All four projects are categorized as Spot Improvement Projects.

Project No. 42-304 involves the replacement of Bridge No. 02374 (Site No. 1). The bridge consists of three simply-supported, steel multi-girder spans with a cast-in-place concrete deck and a bituminous concrete wearing surface. Recent inspections of the bridge indicate accelerated deterioration of the concrete and a deformation in one of the stringer webs. The bridge is considered structurally deficient due to these issues and is functionally obsolete due to inadequate vertical underclearance to the Route 2 Eastbound ramps below the bridge.

The proposed Bridge No. 02374 will consist of an 85-foot simple single-span steel girder and concrete deck superstructure supported on H-pile founded abutments. The project includes the reconstruction of approximately 350-feet of approach roadway. New catch basins will be installed and connected to the existing outlet pipes. The proposed bridge will provide 15-foot 1-inch of vertical underclearance in the final condition above the Route 2 Eastbound ramps, thereby removing its functionally obsolete designation. Construction access at this bridge utilizes the area used during the construction of Site No. 3, as described below.

Project No. 42-305 involves the rehabilitation of Bridge No. 02375 (Site No. 2). The bridge exhibits areas of deteriorated concrete, structural steel corrosion and deck joint leakage. The bridge is considered structurally deficient and is also functionally obsolete due to inadequate horizontal and vertical underclearance. The inadequate horizontal underclearance is measured along both TR 833 (I-84 Connector) and I-84 Eastbound. The inadequate vertical underclearance is measured along TR 833 (I-84 Connector). Bridge No. 02375 has been recommended for rehabilitation.

The proposed rehabilitation will consist of concrete patching and repair to the superstructure and substructure units, modifying the parapets to safety shape, performing steel repairs at various locations, painting all beam ends and end diaphragms, replacing expansion bearings and repairing all fixed bearings. Also included is replacing the deck joints and making the deck continuous over the piers by constructing link slabs at pier locations. The proposed lane and shoulder configurations will match the existing roadway layout. There is no storm drainage work proposed for this project. The rehabilitation will fix the structure deficiencies. However, the functional obsolescence of the bridge will not change. All work will be done from the top of the bridge, with no impact to pervious areas.

Project No. 42-316 involves the rehabilitation of Bridge No. 02376 (Site No. 3). The bridge exhibits areas of deteriorated concrete, structural steel corrosion and deck joint leakage. The bridge is structurally deficient due to the poor condition of the superstructure and is functionally obsolete due to inadequate vertical underclearance to I-84 Eastbound. Bridge No. 02376 has been

recommended for rehabilitation.

The proposed rehabilitation will consist of a superstructure replacement which, in conjunction with a raised vertical roadway profile, will provide 16-feet of vertical underclearance, thereby removing its functionally obsolete designation. The proposed bridge will be made continuous across the three spans. The existing abutments, wingwalls, and piers will be modified to accommodate the new superstructure and vertical alignment. The existing substructure components that are not modified will be repaired as appropriate to correct minor deficiencies such as spalls and exposed rebar. The project includes approximately 750-feet of full depth roadway reconstruction. The proposed lane and shoulder configurations will match the existing roadway layout. New catch basins will be installed and connected to existing outlet pipes. The impact area of the proposed work will extend beyond the limits of the bridge due to the raise in vertical profile. However, all work will be accomplished from the bridge deck. Construction access drives or construction areas will not be installed.

Project No. 42-310 involves the rehabilitation of the existing Bridge No. 02368A (Site No. 4). The bridge is structurally deficient due to the poor condition of the superstructure and deck. Bridge No. 02368A has been recommended for rehabilitation.

The proposed rehabilitation will entail a superstructure replacement consisting of weathering steel girders and precast concrete deck panels. Roadway safety will be enhanced by providing increased vertical underclearance and standard bridge rail. The left shoulder of the bridge deck will be increased by two-feet to improve sight distance along the inside curve of the bridge. Stormwater inlet and outlet pipes will be extended to provide adequate space for construction staging. After the bridge work is complete, the stormwater features will be reset to their original location.

Access to Site No. 1 and Site No. 4 will be made by constructing access drives and level staging areas adjacent to Bridge Nos. 02374 and 02368A. An access drive will be constructed from Pitkin Street. The access drive will lead to a crane pad installed just south of the Route 2 Eastbound exit ramps. North of the Route 2 Eastbound exit ramps, earth retaining systems will be installed west of Bridge No. 02374 and east of Bridge No. 02368A. The existing embankment material will be excavated to provide level construction pads for cranes to operate. After the bridge work is complete, the embankments will be restored. A retaining system will also be installed along Bridge No. 02368A north of I-84 Eastbound. This area will also be restored after the proposed bridge work is complete. All proposed grades match the existing grades except for the proposed contours shown on the plan sheets in Appendix A.

The project area of the four bridges is heavily developed with major arterial roadways (I-84 & Route 2), local roads and commercial buildings encircling the East Hartford interchange area. A review of the Connecticut Department of Energy and Environmental Protection Natural Diversity Database (CT DEEP NDDDB) map (December 2014) indicates that the project is not located within an area of known populations of State or Federally Listed Species. The site is not located within an Aquifer Protection Area.

## Estimated Disturbed Area

The project site encompasses the entire watershed of the outlet points that will be monitored during construction. The total area of the project site is 16.51 acres. Within the project site, there will be 4.98 acres disturbed during construction activities. The disturbed area consists of the existing bridges, the embankment slopes around the bridges and the access drives and staging areas installed to perform the proposed construction activities. The existing ground within the disturbed area consists of pavement, grass, wooded and wetland areas. Of the 4.98 acres disturbed area, 2.93 acres are impervious.

## Estimated Runoff Coefficient

### Pre-Construction Condition

	<b>Runoff Coefficient</b>	<b>Area (acres)</b>
Wetland Area	0.20	2.07
Wooded Area	0.40	2.20
Grass Area	0.50	4.38
Impervious Area	0.90	7.86
<b>Total Area</b>		<b>16.51</b>

$$C_{\text{weighted}} = \frac{(0.20)(2.07) + (0.40)(2.20) + (0.50)(4.38) + (0.90)(7.86)}{16.51} = 0.6394$$

### Post-Construction Condition

	<b>Runoff Coefficient</b>	<b>Area (acres)</b>
Wetland Area	0.20	2.07
Wooded Area	0.40	2.20
Grass Area	0.50	4.41
Impervious Area	0.90	7.83
<b>Total Area</b>		<b>16.51</b>

$$C_{\text{weighted}} = \frac{(0.20)(2.07) + (0.40)(2.20) + (0.50)(4.41) + (0.90)(7.83)}{16.51} = 0.6388$$

The vast majority of the post-construction site will retain the same cover as the pre-construction conditions. Portions of the existing Bridge No. 02368A will change cover type. As noted previously, the left shoulder of the proposed bridge will be two-feet beyond the existing bridge shoulder to increase the sight distance along the curve. This increase in impervious area is offset by the demolition without replacement of a piece of the existing bridge. This trapezoidal piece of the existing bridge is located above and just north of the I-84 Connector lanes. The cover of the portion of the bridge demolished and not replaced has been changed to grass in the post-construction calculation.

There are three ultimate outlet points discharging stormwater from the project site (see Stormwater Outlets plan, Appendix A). The majority of the site discharges through a 36" RCP east of Bridge No. 02368A, just south of the I-84 Connector lanes (EO-1). Wetland areas southwest and northwest of Bridge No. 02374 and east and northeast of Bridge No. 02368 are connected and ultimately discharge through this outlet (including Temporary Outlets TO-1, TO-2 and TO-3 and Proposed Outlets PO-1, PO-2, PO-3 and PO-4). A 15" ACCMP conveying a small, mostly impervious area discharges through the same endwall as the 36" RCP. The area discharging through the 15" pipe is included in the area listed in Table 2 of the Registration Form.

A small drainage network is located at the south end of Bridge No. 02375. This outlet (EO-2) discharges a three catch basin network through a 15" ACCMP. The final outlet is located northeast of Bridge No. 02375, just north of I-84 Eastbound. This outlet discharges an 18" RCP through an "L" shaped endwall (EO-3). A 15" CMP also discharges through the "L" shaped endwall and is included in the area listed in Table 2.

### **Receiving Waters**

The immediate receiving waters is the interconnected wetlands located within the interchange area. The wetlands drain to the Hockanum River (Hockanum River Basin, CT DEEP Basin #4500), which is part of the Hockanum Regional Basin. The bridges are located within FEMA Flood Zone "Other Flood Area" (Map Number 09003C0369G), dated September 16, 2011. This area is associated with the floodplain of the Connecticut River, but is protected by the East Hartford levee system.

### **Extent of Wetlands on Site**

The existing stormwater systems outlet into vegetated areas between the highway ramps and lanes. Wetlands have formed within these areas. The wetland areas receive water from precipitation, overland flow, storm drainage and are subject to backwater from the Connecticut River during major storm events. A myriad of culverts and roadway ramps form an intricate system throughout the site.

Due to site limitations from the extent of wetlands, there is little room to provide additional stormwater treatment measures. The project area is within the FEMA floodplain (see FEMA FIRM, Appendix A) and the inland wetland limit extends to the toe of slope at the bottom of the existing embankments.

There are approximately 2.2 acres of wetlands within the project area. A total of 2,554 square feet (0.059 acres) of permanent impact and 2,319 square feet (0.053 acres) of temporary impact, for an overall total of 4,873 square feet (0.112 acres) of impact is expected for the Site. Wetland functions and values are not expected to be adversely impacted when viewing the wetland system as a whole. More stable slopes, proper outfall protection, and native plantings all will aid in offsetting the wetland loss.

## 2. Construction Sequencing

---

One contractor will be selected to complete the work at the four bridges. The construction time of the bridges overlap. The contractor will be selected in early 2015. Construction is anticipated to start in May 2015 and be completed by November 2016. Liquidated damages will be assessed for each day of work not completed by the end of November 2016.

The suggested sequence of construction is as follows:

1. Conduct a preconstruction meeting.
2. Install erosion controls at the effected inlets and at limits of disturbed slopes. Erosion controls will be relocated as necessary during each phase of construction.
3. Perform clearing and grubbing activities.
4. Implement detours for Site Nos. 1 and 3. (The detour for Site No. 1 detours the traffic of the roadway below the bridge, not the traffic on the bridge.)
5. Shift traffic to west side of Bridge No. 02374 (Site No. 1).
6. Demolish the existing eastern portion and construct the proposed eastern portion of Bridge No. 02374 (Site No. 1). Approximate 32 week period.
7. Remove the existing bridge deck, perform minor structure repair and construct Bridge No. 02376 (Site No. 3). Approximate 30 week period.
8. Shift traffic to the eastern side of Bridge No. 02374 (Site No. 1). Demolish the existing western portion and construct the proposed western portion of the bridge. Approximate 29 week period.
9. Construct access areas and perform initial earthwork for Bridge No. 02368A (Site No. 4). Approximate 4 week period.
10. Implement detour for Site No. 4.
11. Install Temporary Earth Retaining System at Bridge No. 02368A (Site No. 4). Approximate 11 week period.
12. Remove existing bridge spans, piers and abutments at Bridge No. 02368A (Site No. 4). Approximate 18 week period.
13. Construct proposed Bridge No. 02368A (Site No. 4). Approximate 21 week period.
14. Shift traffic to the western side of Bridge No. 02375 (Site No. 2). Construct eastern portion of bridge. Approximate 17 week period.
15. Shift traffic to the eastern side of Bridge No. 02375 (Site No. 2). Construct western portion of bridge. Approximate 14 week period.
16. Grade grass slopes and immediately stabilize. Establish turf, per plan, on all remaining disturbed areas. Install landscaping. Approximate 4 week period.
17. Remove erosion controls when it is determined that disturbed areas have been stabilized. (This determination will be made by the Engineer.)
18. All post-construction stormwater structures shall be cleaned of construction sediment and any remaining silt fence shall be removed prior to the filing of the "Notice of Termination Form".
19. Perform project cleanup.

If the construction sequencing activities create an area of disturbance between two (2) acres and five (5) acres per discharge point, the Contractor must submit to the Engineer a revised Stormwater Pollution Control Plan (SPCP) for review and approval. The SPCP must include locations of the temporary sedimentation trap per discharge point with a capacity to contain 134 cubic yards per acre of material. The Contractor shall provide an inspection and maintenance plan for the temporary sedimentation trap as part of the amended SPCP.

### 3. Control Measures

---

Erosion and sedimentation controls will conform to and be maintained in accordance with the “2002 Connecticut Guidelines for Soil Erosion and Sediment Control” (E&S Guidelines), “State of Connecticut Department of Transportation Standard Specifications for Roads, Bridges and Incidental Construction, Form 816, 2004” (Form 816), included supplements dated July 2014 thereto, and the Contract Plans and Documents.

The location of the erosion and sedimentation controls are shown on the construction plans and detail sheets. Additional measures, if required, are contained in the above documents.

#### Erosion and Sedimentation Controls

The CTDOT will have construction inspection personnel assigned to the project in order to oversee the Contractor’s operations to ensure compliance with the provisions of the Standard Specifications. Further CTDOT oversight is provided by the District 1 Environmental Coordinator and the Office of Environmental Planning.

The following timelines will be followed for the proposed construction activities:

- If construction activities are complete or have been temporarily halted for more than seven (7) days, stabilization activities will be implemented within three (3) days.
- Areas that remain disturbed but inactive for at least 30 days shall receive temporary seeding or soil protection within seven (7) days.
- Disturbed areas that do not establish a vegetative cover within 30 days of seeding shall have erosion control blankets installed. Prior to the erosion control blanket installation, the soil would be prepared with the application of lime, fertilizer, and seed.
- Areas that will be disturbed past the planting season will be covered with a long-term, non-vegetative stabilization method that will provide protection through the winter.
- Stabilization practices will be implemented as quickly as possible in accordance with the Guidelines.
- The Contractor shall stabilize disturbed areas with temporary or permanent measures as quickly as possible after the land is disturbed. Requirements for soil stabilization are detailed in Form 816 Section 1.10.03, Best Management Practices.



## **Temporary Stabilization Practices**

Prior to the start of construction, temporary stabilization measures will be installed. The temporary measures will be removed after final stabilization. Temporary measures include construction entrances, temporary seeding, riprap outlet protection, silt fencing, and hay bales. Additional temporary controls include the use of calcium chloride for dust control and street sweeping.

Temporary seeding shall be spread over any disturbed areas which will remain inactive for at least 30 days. Areas to remain disturbed through winter shall be protected with non-vegetative stabilization measures. The Contractor must provide an Erosion and Sedimentation Control plan for the winter season during construction operations.

The Contractor may use other controls in the project as necessary if they conform to the E&S Guidelines and are approved by the Engineer. The contractor will be required to provide the necessary details for any erosion controls not specifically called for on the project plans.

During construction, all areas disturbed by the construction activity that have not been stabilized and locations where vehicles enter or exit the site shall be inspected at least once every seven calendar days. These areas shall also be inspected within 24 hours following any storm in which 0.5 inches of greater of rain occurs.

## **Permanent Stabilization Practices**

All new embankments disturbed by construction and unpaved areas that are graded or disturbed by construction will receive erosion control matting, topsoil and/or turf establishment. The Contractor may use other permanent stabilization practices approved by the Engineer and conforming to the E&S Guidelines.

During construction, permanent stabilization measures will be installed. Riprap splash pads will provide permanent protection at the proposed storm outlets. Proposed landscaping will be placed along the edges of the disturbed wetland areas to restore lost vegetation and steep slopes will be stabilized.

At Site No. 4, reinforced soil slopes will be utilized at two sections for slopes with a maximum grade of 1:1. Both sections are located along the west side of Route 2 Westbound. The 1:1 slopes are required because the existing slope is steeper than 2:1. The reinforcement will consist of geotextile layers placed horizontally across the proposed slope. The maximum height of the 1:1 slope is 8-feet. The combined length of the two reinforced soil slope locations is 130-feet.

Slopes with a height over 15-feet and a maximum grade of 2:1 will be installed along the embankment slopes at Site No. 1. Northwest of Bridge No. 02374, the maximum height of the 2:1 slope is 25-feet. Northeast of the bridge, the maximum height of the 2:1 slope is 20-feet. Southwest of the bridge, the maximum height of the 2:1 slope is 18-feet. The 2:1 slopes do not have reverse slope benches. The benches were not included due to additional wetland impacts the benching would cause. If reverse slope benches were utilized, the additional wetland impact would total

approximately 6,000 square feet. A global stability analysis was performed and verified the proposed embankment slopes are stable with a factor of safety in excess of 1.3.

## **Structural Measures**

Structural measures will be utilized to minimize the exposure of soils and disturbance to the existing wetlands around Site Nos. 1 and 4. At these sites, the construction areas overlap. Temporary Earth Retaining Systems (TERS) will be installed along the roadways at the top of the existing embankment slopes. Geocell walls will be installed at the bottom of the existing embankment slopes. The area between the TERS and Geocell walls will be utilized to provide level construction areas for vehicles and equipment. The use of these measures limits the impact to the existing wetlands at the bottom of the embankments. After construction, the TERS and Geocell walls will be removed and the embankments will be regraded to match existing conditions.

## **Maintenance**

All construction activities and related activities shall conform to the requirements of Section 1.10 "Environmental Compliance" of CTDOT's Standard Specifications, Form 816. In general, all construction activities shall proceed in such a manner so as not to pollute any wetlands, watercourses, water body, and conduit carrying stormwater. The Contractor shall limit, in so far as possible, the surface area of earthen materials exposed by construction activity and immediately provide temporary and permanent pollution control to prevent soil erosion and contamination on the site. Water pollution control provisions and best management practices per Section 1.10.03 of the Standard Specifications shall be administered during construction. Control measures shall be inspected and maintained in accordance with the E&S Guidelines and as directed by the Engineer.

## **4. Dewatering Wastewaters**

---

### **Dewatering Guidelines**

During installation of the Temporary Earth Retaining Systems and storm drainage at Site No. 4, dewatering structures will be placed to handle and treat stormwater and groundwater. The dewatering structures will be located outside of the wetland limits. The dewatering structures will be used during the installation of both the temporary and permanent drainage features.

Prior to any dewatering, the Contractor must submit to the Engineer a written proposal for specific methods and devices to be used, and must obtain the Engineer's written approval of such methods and devices. If the Engineer determines that a pumping operation is causing turbidity problems, the Contractor shall halt said operation until a means of controlling the turbidity is submitted by the Contractor in writing to the Engineer, approved in writing by the Engineer and implemented by the Contractor. No discharge of dewatering wastewater shall contain or cause a

visible oil sheen, floating solids or foaming in the receiving water. All activities are to be performed in compliance with CTDOT Form 816.

## 5. Post-Construction Stormwater Management

---

Once construction is complete, a series of stormwater management techniques will remain to ensure the control of sediment in stormwater discharges. The proposed catch basins will be installed with 2-foot deep sumps. A riprap splash pad will be installed at each stormwater outlet point to minimize the potential of erosion by reducing the velocity of concentrated storm flows.

Additionally, after the project is complete, the Department will perform the following maintenance and restorative measures:

- Litter/debris will be removed from the site regularly.
- Mowing and maintenance of the turf areas and vegetated areas will occur as needed.
- Riprap outlet protection will be inspected and repaired biennially or as needed.

### Post Construction Performance Standards

The bridge projects do not include development, as the ground disturbance is limited to providing access to the existing bridges. The overall effective impervious area will slightly decrease (due to the removal of a portion of existing Bridge No. 02368A (Sta. 154+50 to 17+25 RT)). The proposed runoff reduction and LID features are limited. All stormwater outlets will discharge onto a riprap splash pad. The splash pads are designed based on the calculated flow using criteria within the CTDOT Drainage Manual. The splash pads will prevent scour at the outlets and minimize the potential for downstream erosion by reducing the velocity of the concentrated stormwater flow.

All stormwater within the project area outlets into wetland areas or drainage channels, all of which exist mainly due to the stormwater features. All stormwater travels through an underground system prior to outletting into a large wetland area north of Hockanum River. Travel to the large wetland area and from the large wetland area to Hockanum River (1,000-feet south) will continue to provide overland flow and pollutant reduction prior to entry into the river. (The large wetland area is located south of Pitkin Street, just west of the East Hartford Water Pollution Control Facility.)

## 6. Other Controls

---

### Waste Disposal

Construction site waste shall be properly managed and disposed of during the entire construction period. Additionally,

- A waste collection area will be designated. The selected area will minimize truck travel through the site and will not drain directly to the adjacent wetlands.

- Waste collection shall be scheduled regularly to prevent the containers from overfilling.
- Spills shall be cleaned up immediately.
- Defective containers that may cause leaks or spills will be identified through regular inspection. Any found to be defective will be repaired or replaced immediately.
- Any stockpiling of materials should be confined to the designated area as defined by the engineer.

## **Washout Areas**

Washout of applicators, containers, vehicles and equipment for concrete shall be conducted in a designated washout area. No surface discharge of washout wastewaters from the area will be allowed. All concrete washwater will be directed into a container or pit such that no overflows can occur. Washout shall be conducted in an entirely self-contained system and will be clearly designed and flagged or signed where necessary. The washout area shall be located outside of any buffers and at least 50 feet from any stream, wetland or other sensitive water or natural resources as determined or designated by CTDOT Office of Environmental Planning.

The designated area shall be designed and maintained such that no overflows can occur during rainfall or after snowmelt. Containers or pits shall be inspected at least once a week to ensure structural integrity, adequate holding capacity and will be repaired prior to future use if leaks are present. The contractor shall remove hardened concrete waste when it accumulates to a height of ½ of the container or pit or as necessary to avoid overflows. All concrete waste shall be disposed of in a manner consistent with all applicable laws, regulations and guidelines.

## **Anti-Tracking Pads and Dust Control**

Off-site vehicle tracking of sediments and the generation of dust shall be minimized. Temporary anti-tracking pads from the active work site to the existing pavement will be installed and maintained at the locations shown on the plans. The contractor shall:

- Maintain the entrance in a condition which will prevent tracking and washing of sediment onto paved surfaces.
- Provide periodic top dressing with additional stone or additional length as conditions demand.
- Repair any measures used to trap sediment as needed.
- Immediately remove all sediment spilled, dropped, washed or tracked onto paved surfaces.
- Ensure roads adjacent to a construction site are left clean at the end of each day.

If the construction entrance is being properly maintained and the action of a vehicle traveling over the stone pad is not sufficient to remove the majority of the sediment, then the contractor shall either:

- Increase the length of the construction entrance,
- Modify the construction access road surface, or
- Install washing racks and associated settling area or similar devices before the vehicle enters a paved surface.

For construction activities which cause airborne particulates, wet dust suppression shall be utilized. Construction site dust will be controlled by sprinkling the ground surface with water until it is moist on an as-needed basis. The volume of water sprayed shall be such that it suppresses dust yet also prevents the runoff of water.

### **Post-Construction**

Upon completion of construction activities and stabilization of the site, all temporary construction features shall be removed. All treatment measures, including dewatering structures, shall be cleaned of construction sediment and any remaining silt fence or hay bales shall be removed prior to acceptance of the project by CTDOT. Sediment shall be properly disposed of in accordance with all applicable laws, regulations and guidelines.

### **Maintaining and Storing Vehicles, Equipment and Products**

The contractor shall take measures to prevent any contamination to wetlands and watercourses while maintaining and storing construction equipment on the site. All chemical and petroleum containers stored on site shall be provided with impermeable containment which will hold at least 110% of the volume of the largest container, or 10% of the total volume of all containers in the area, whichever is larger, without overflow from the containment area. All chemicals and their containers shall be stored under a roofed area except for those stored in containers of 100 gallon capacity or more, in which case double-walled tanks will suffice.

Throughout the duration of the work, the Contractor must maintain on site a supply of absorbent pads and other approved materials needed to treat any hazardous spill or contamination. All spills or contaminations must be reported immediately to the CT DEEP Hazardous Materials Office as well as CTDOT.

## **7. Inspections**

---

Qualified personnel, provided by CTDOT, will provide all inspection services during project construction. All construction activities will be initially inspected to ensure implementation. Qualified personnel will also provide routine inspection of all disturbed areas of the construction activity that have not been finally stabilized, structural control measures, and locations where vehicles enter or exit the site at least once every seven calendar days and within twenty-four (24) hours of the end of a storm that is 0.1 inches or greater. Where sites have been temporarily or finally stabilized, such inspection shall be conducted at least once every month for three months.

The Contractor will maintain a rain gauge on-site to document rainfall amounts. The Contractor will keep a record of the date of each rainfall and the amount of rain per event. For rain events that occur on a weekend or holiday, the rainfall gauge will be read at the start of the subsequent normal working day.

Disturbed areas and areas used for storage of materials that are exposed to precipitation shall be inspected for evidence of, or the potential for, pollutants entering the drainage system. Erosion and sediment control measures will be observed to ensure that they are operating correctly. Where discharge locations or points are assessable, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters. Location where vehicles enter or exit the site shall be inspected for evidence of off-site sediment tracking. For storms that end on a weekend, holiday or other time after which normal working hours will not commence within 24 hours, an inspection is required within 24 hours only for storms that equal or exceed 0.5 inches. For storms of less than 0.5 inches, an inspection shall occur immediately upon the start of the subsequent normal working hours. Where sites have been temporarily or finally stabilized, such inspection shall be conducted at least once every month for three months.

A report shall be prepared and retained as part of the SPCP. This report shall summarize: the scope of the inspection; name(s) and qualifications of personnel making the inspection; the date(s) of the inspection; weather conditions including precipitation information; major observations relating to erosion and sediment controls and the implementation of the SPCP; a description of the stormwater discharge(s) from the site; and any water quality monitoring performed during the inspection. The report shall be signed by a CTDOT representative in accordance with the "Certification of Documents" section of the General Permit.

The report shall include a statement that, in the judgment of the qualified inspector(s) conducting the site inspection, the site is either in compliance or out of compliance with the terms and conditions of the SPCP. If the site inspection indicates that the site is out of compliance, the inspection report shall include a summary of the remedial actions required to bring the site back into compliance. Non-engineered corrective actions shall be implemented on site within 24 hours and incorporated into a revised SPCP within three (3) calendar days of the date of inspection unless another schedule is specified in the E&S Guidelines. Engineered corrective actions (as identified in the E&S Guidelines) shall be implemented on site within seven (7) days and incorporated into a revised SPCP within ten (10) days of the date of inspection, unless another schedule is specified in the E&S Guidelines or is approved by the commissioner. During the period in which any corrective actions are being developed and have not yet been fully implemented, interim measures shall be implemented to minimize the potential for the discharge of pollutants from the site.

## **8. Keeping Plans Current**

---

### **Revisions to Stormwater Pollution Control Plans:**

CTDOT shall amend the Plan if the actions required by the Plan fail to prevent pollution or otherwise comply with provisions of the General Permit. The Plan shall also be amended whenever there is a change in contractors or subcontractors at the site. If the results of the inspections require modifications to the Stormwater Pollution Control Plan, the plans shall be revised as soon as practicable after the inspection. Such modifications shall provide for a timely implementation of

any changes to the site within 24 hours and implementation of any changes to the plan within three calendar days following the inspection.

The commissioner may notify the Contractor at any time that the SPCP and/or the site do not meet one or more of the minimum requirements of this General Permit. Within 7 days of such notice, or such other time as the commissioner may allow, the Contractor shall make the required changes to the SPCP and perform all actions required by such revised SPCP. Within 15 days of such notice, or such other time as the commissioner may allow, the Contractor shall submit to the commissioner a written certification that the requested changes have been made and implemented and such other information as the commissioner requires.

In no event shall failure to complete, maintain or update an SPCP, in accordance with the “Development of Contents of the Plan” and “Keeping Plans Current” sections of the General Permit, relieve a Contractor of responsibility to implement any actions required to protect the waters of the state and to comply with all conditions of the permit.

## **9. Monitoring Requirements**

---

As outlined in the General Permit, monthly turbidity monitoring is required throughout the project’s construction. The monitoring requirements are as follows:

### **Monitoring Frequency**

- Turbidity Monitoring is required on a monthly basis when there is discharge of stormwater from the site while construction activity is ongoing, until final stabilization of the drainage area associated with each outfall is achieved.
- The Contractor is required to take samples during normal working hours. If sampling is discontinued due to the end of normal working hours, the Contractor shall resume sampling the following morning or the morning of the next working day following a weekend or holiday as long as discharge continues.
- Sampling may temporarily be suspended at any time conditions exist that may reasonably pose a threat to the safety of the person taking the sample. Such conditions may include high winds, lightening, impinging wave or tidal activity, intense rainfall or other hazardous condition. Once the unsafe condition is no longer present, sampling shall resume.
- If there is no stormwater discharge during a month, sampling is not required.

### **Sample Collection**

- All samples shall be collected from discharges resulting from a storm event that occurs at least 24 hours after any previous storm event generating a stormwater discharge. Any sample containing snow or ice melt must be identified on the Stormwater Monitoring Report. Sampling of snow or ice melt in the absence of a storm event is not a valid sample.

- Samples shall be grab samples taken at least three separate times during a storm event and shall be representative of the flow and characteristics of the discharge(s). Samples may be taken manually or by an in-situ turbidity probe or other automatic sampling device equipped to take individual turbidity readings (i.e. not composite). The first sample shall be taken within the first hour of stormwater discharge from the site. In cases where samples are collected manually and the discharge begins outside of normal working hours, the first sample shall be taken at the start of normal working hours.

### **Sample Locations**

- A representative discharge sample is required for point source discharges of stormwater from disturbed areas. The discharge points are shown on the plans and listed in the General Permit Registration Form. The points are at the existing, temporary and proposed outlets.
- All sampling points will be clearly marked in the field with a flag, stake, or other visible marker.

### **Turbidity Values**

- The stormwater discharge turbidity value for each sampling point shall be determined by taking the average of the turbidity values of all samples taken at that sampling point during a given storm.

### **Stormwater Monitoring Reports**

- Within thirty (30) days following the end of each month, the Contractor will enter the stormwater sampling results on the Stormwater Monitoring Report (SMR) form ([www.ct.gov/deep/stormwater](http://www.ct.gov/deep/stormwater)) and submit it in accordance with the NetDMR provisions below, or, if the Contractor has opted out of NetDMR, to the following address:

Bureau of Materials Management and Compliance Assurance  
Water Permitting and Enforcement Division (Attn: DMR Processing)  
Connecticut Department of Energy and Environmental Protection  
79 Elm Street  
Hartford, CT 06106-5127

- If there was no discharge during any given monitoring period, the Contractor will submit the form as required with the words “no discharge” entered in place of the monitoring results.
- If the Contractor monitors any discharge more frequently than required by this general permit, the results of this monitoring shall be included in additional SMRs for the month in which the samples were collected.
- If sampling protocols are modified due to the limitations of normal working hours or unsafe conditions, a description of and reason for the modifications shall be included with the SMR.



## **10. Contractors**

---

### **General**

This section shall identify all Contractors and Subcontractors who will perform on site actions which may reasonably be expected to cause or have the potential to cause pollution of the waters of the State.

### **Certification Statement**

All contractors and subcontractors must sign the attached statement. All certification will be included in the Stormwater Pollution Control Plan.

**State Project Nos. 42-304, 42-305, 42-310 & 42-316**

I-84/Route 2 Mixmaster Interchange  
East Hartford, CT

“I certify under penalty of law that I have read and understand the terms and conditions of the General Permit for the Discharge of Stormwater Associated with Construction Activities. I understand that as Contractor or subcontractor at the site, I am covered by this general permit, and must comply with the terms and conditions of this permit, including but not limited to, the requirements of the Stormwater Pollution Control Plan prepared for this project.”

**GENERAL CONTRACTOR**

Signed:\_\_\_\_\_

Date:\_\_\_\_\_

Title:\_\_\_\_\_

Firm:\_\_\_\_\_

Telephone:\_\_\_\_\_

Address:\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**SUBCONTRACTOR**

Signed:\_\_\_\_\_

Date:\_\_\_\_\_

Title:\_\_\_\_\_

Firm:\_\_\_\_\_

Telephone:\_\_\_\_\_

Address:\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**State Project Nos.  
42-304, 42-305, 42-310 & 42-316**

**I-84/Route 2 Mixmaster Interchange**

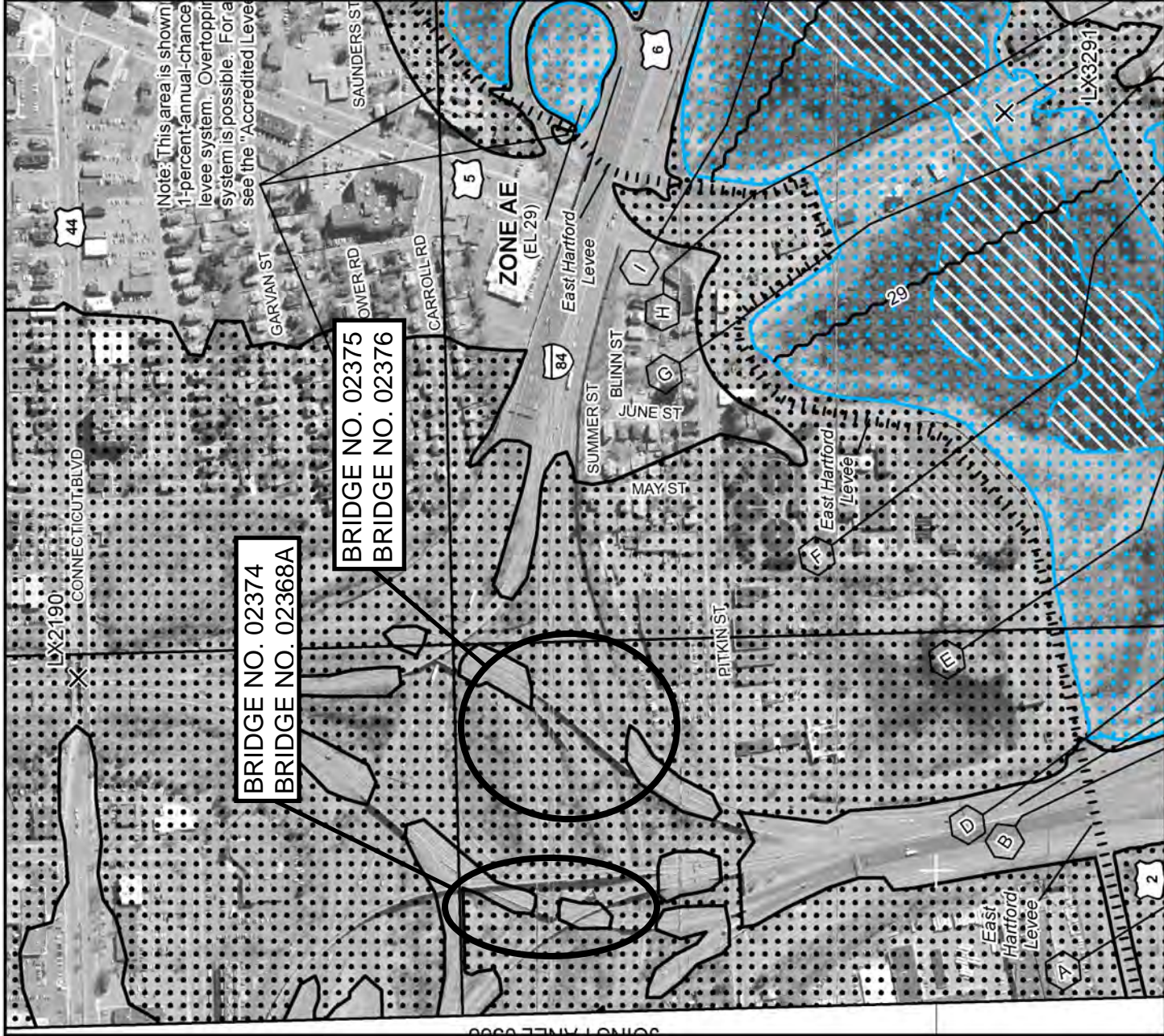
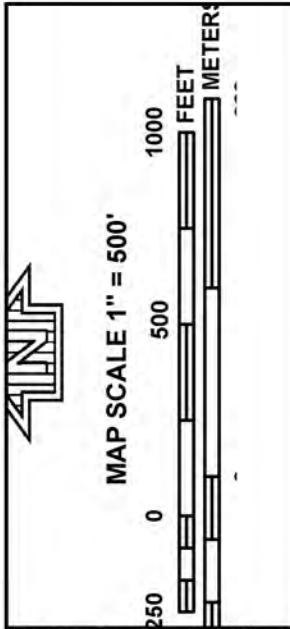
**Stormwater Pollution Control Plan**

**Appendix A  
Project Figures and Plans**

**FEMA FIRM**

Project Areas (Construction Area of Each Project)  
Stormwater Outlets (Drainage Area of Each Outlet)  
    42-304 Roadway Plan (Site No. 1)  
    42-305 Roadway Plan (Site No. 2)  
42-316 Roadway Plan (Site No. 3 incl. Washout Area)  
    42-310 General Plan (Site No. 4)  
    42-310 Construction Plan 1 (Proposed Drainage)  
    42-310 Construction Plan 2 (Proposed Drainage)  
42-310 Temporary Drainage & Guide Rail Details 1 (Anti-Tracking Pads)  
42-310 Temporary Drainage & Guide Rail Details 2 (Anti-Tracking Pads)  
    42-310 Stormwater Permit Washout Areas  
        42-304/310 Landscaping Plan  
        42-310 Reinforced Soil Slope  
    42-310 Splash Pad & Scour Hole Detail

**Bridge Nos. 02374, 02375, 02376 & 02368A  
East Hartford, Connecticut**



NFIP

## FIRM

FLOOD INSURANCE RATE MAP  
HARTFORD COUNTY,  
CONNECTICUT  
(ALL JURISDICTIONS)

PANEL 369 OF 675  
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:  
COMMUNITY EAST HARTFORD,  
TOWN OF  
HARTFORD, CITY OF  
NUMBER 090026  
PANEL 0369  
SUFFIX G

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.

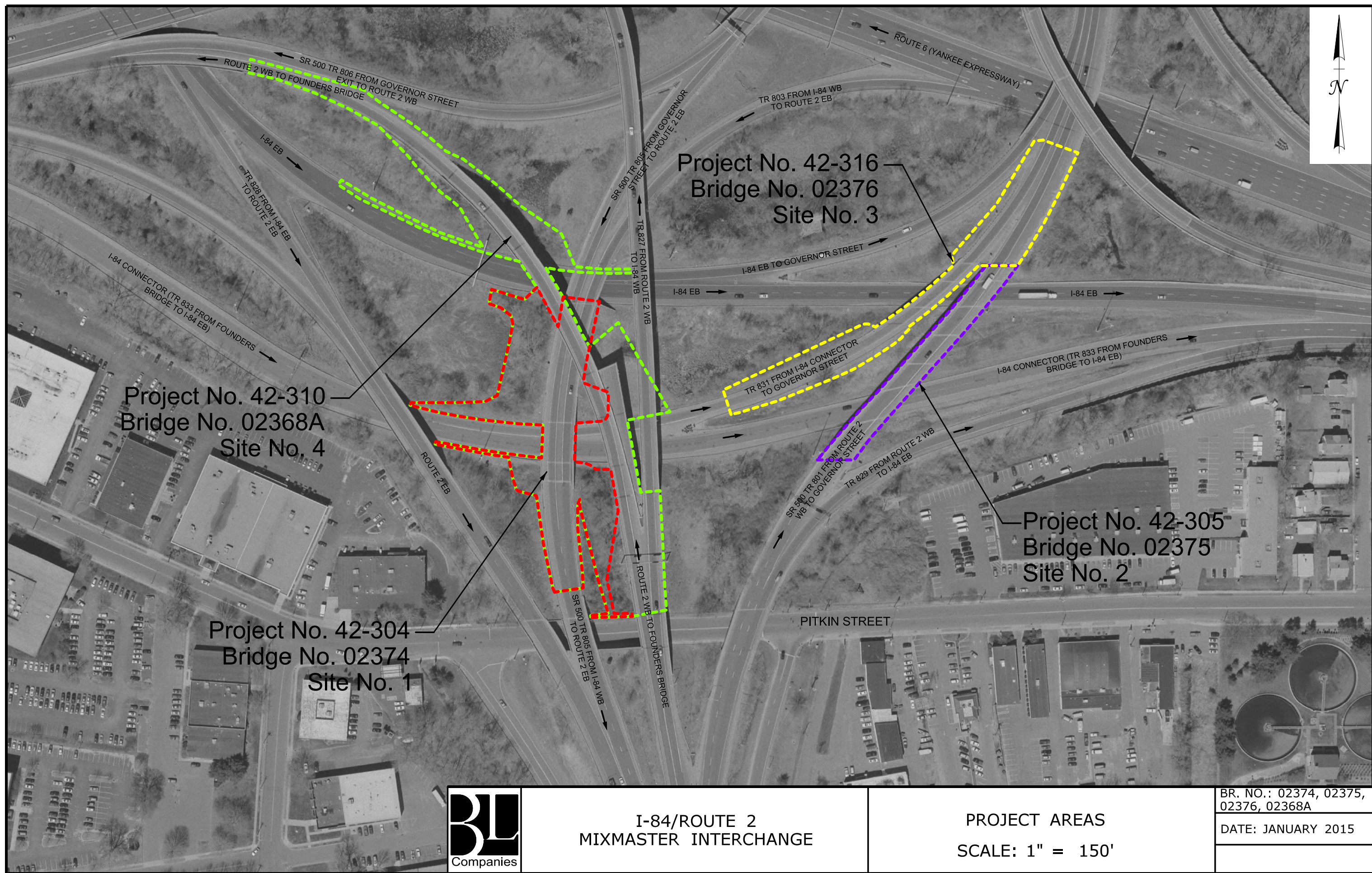


MAP NUMBER  
09003C0369G  
MAP REVISED  
SEPTEMBER 16, 2011

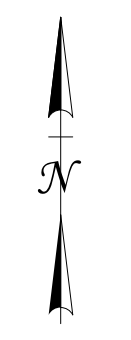
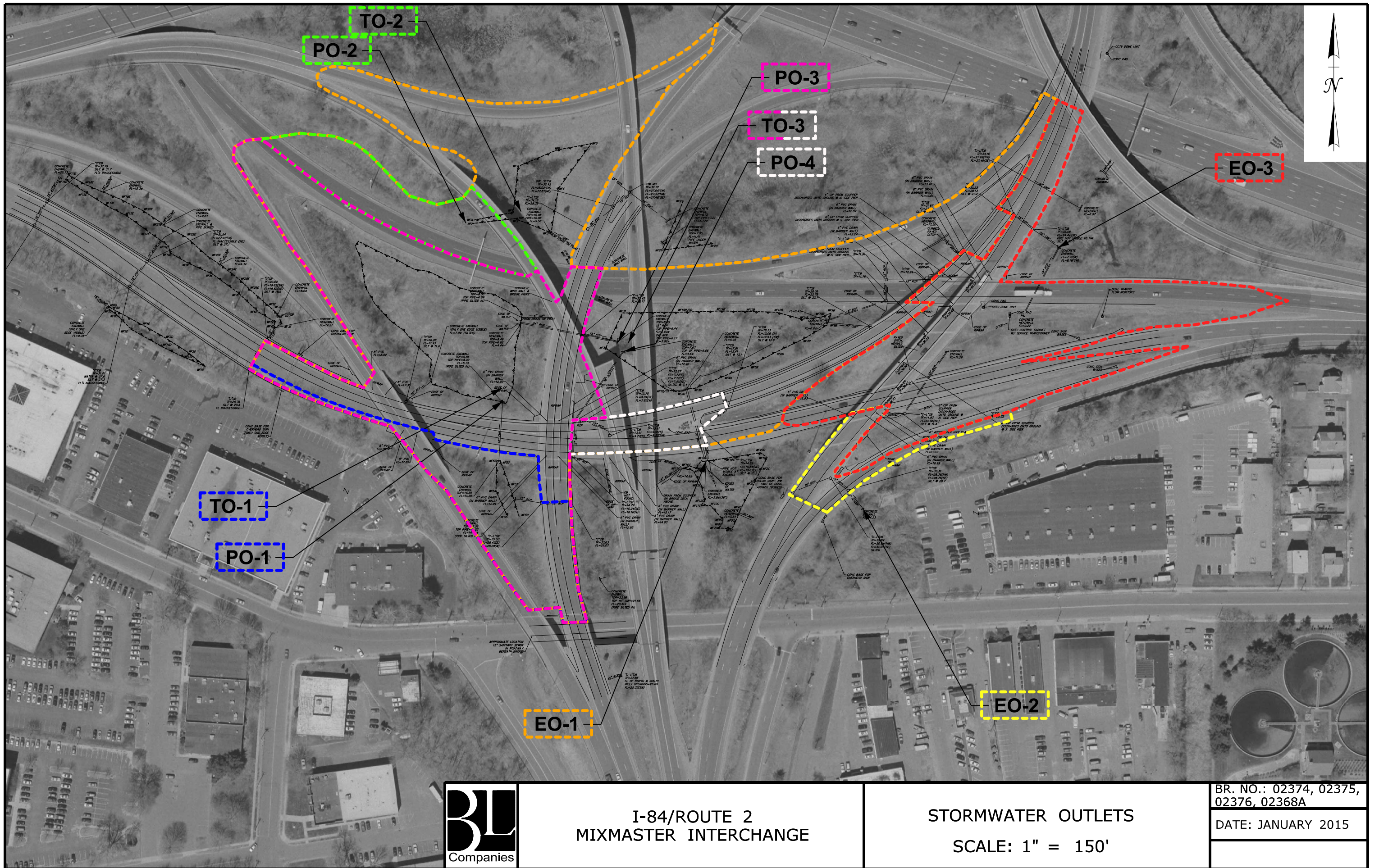
Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at [www.msc.fema.gov](http://www.msc.fema.gov)









I-84/ROUTE 2  
MIXMASTER INTERCHANGE

STORMWATER OUTLETS  
SCALE: 1" = 150'

BR. NO.: 02374, 02375,  
02376, 02368A

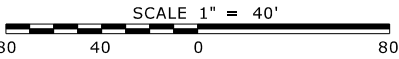
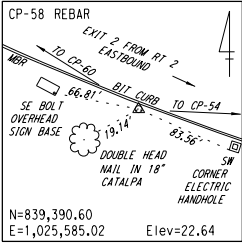
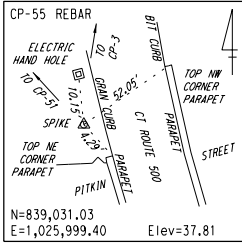
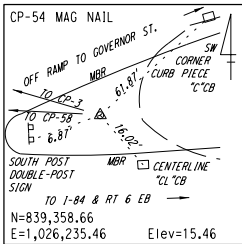
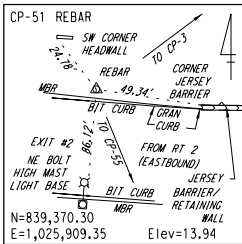
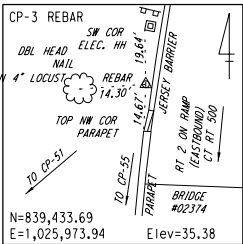
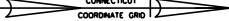
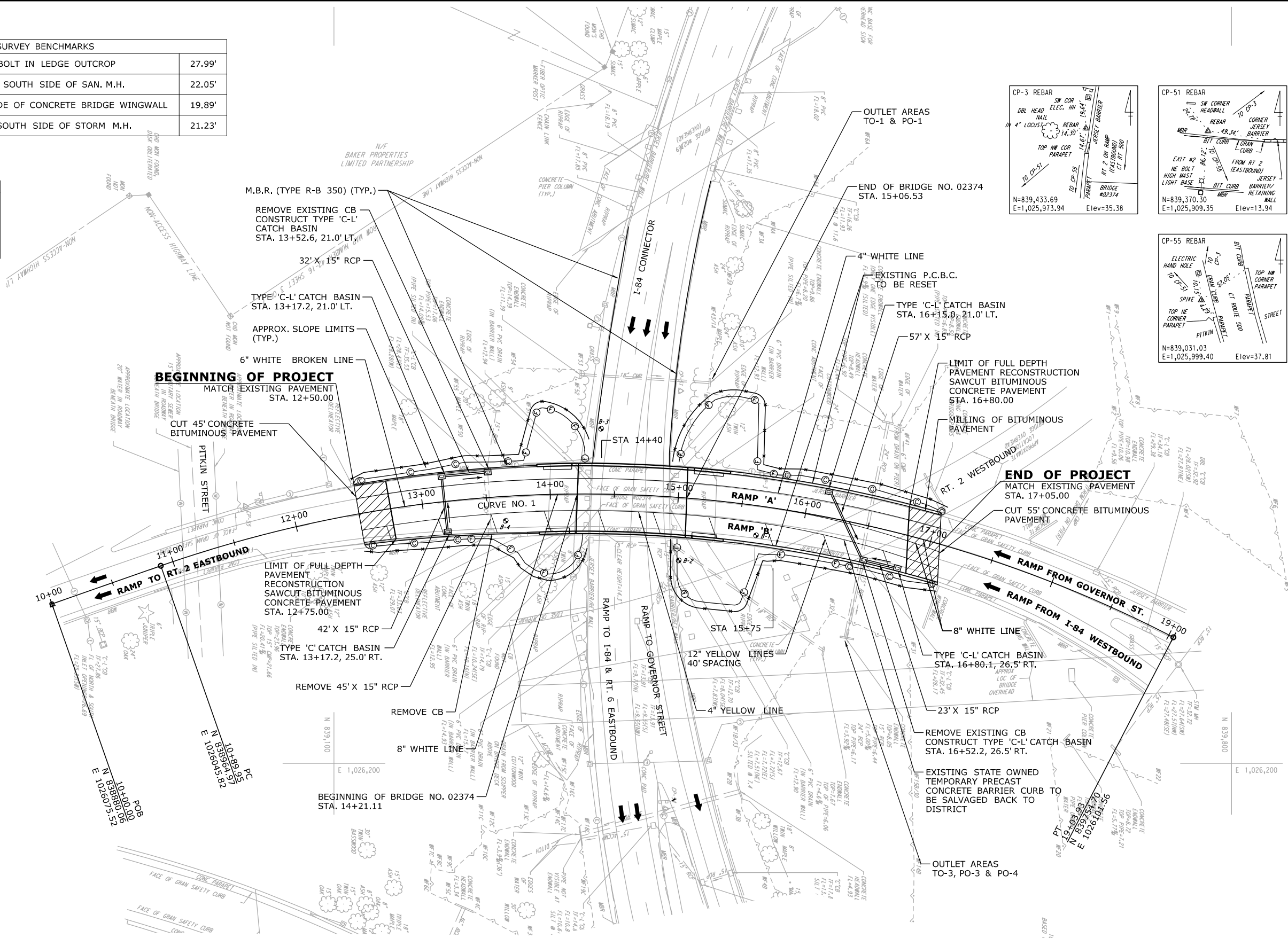
DATE: JANUARY 2015



SURVEY BENCHMARKS		
B.M. 1A	HEX BOLT IN LEDGE OUTCROP	27.99'
B.M. 2A	D.H. IN SOUTH SIDE OF SAN. M.H.	22.05'
B.M. 3A	D.H. IN EAST SIDE OF CONCRETE BRIDGE WINGWALL	19.89'
B.M. 4A	D.H. IN SOUTH SIDE OF STORM M.H.	21.23'


(NGVD 1988)

CURVE NO. 1
RADIUS: 1000.000'
DELTA: 46° 38'15.6" RIGHT
LENGTH: 813.981'
TANGENT: 431.058'
PI N: 839371.85
E: 1025903.48




REV.	DATE	REVISION DESCRIPTION	SHEET NO.
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

DESIGNER/DRAFTER: <b>DJA / MTF</b>
CHECKED BY: <b>EWM</b>
SCALE AS NOTED



**STATE OF CONNECTICUT**  
**DEPARTMENT OF TRANSPORTATION**

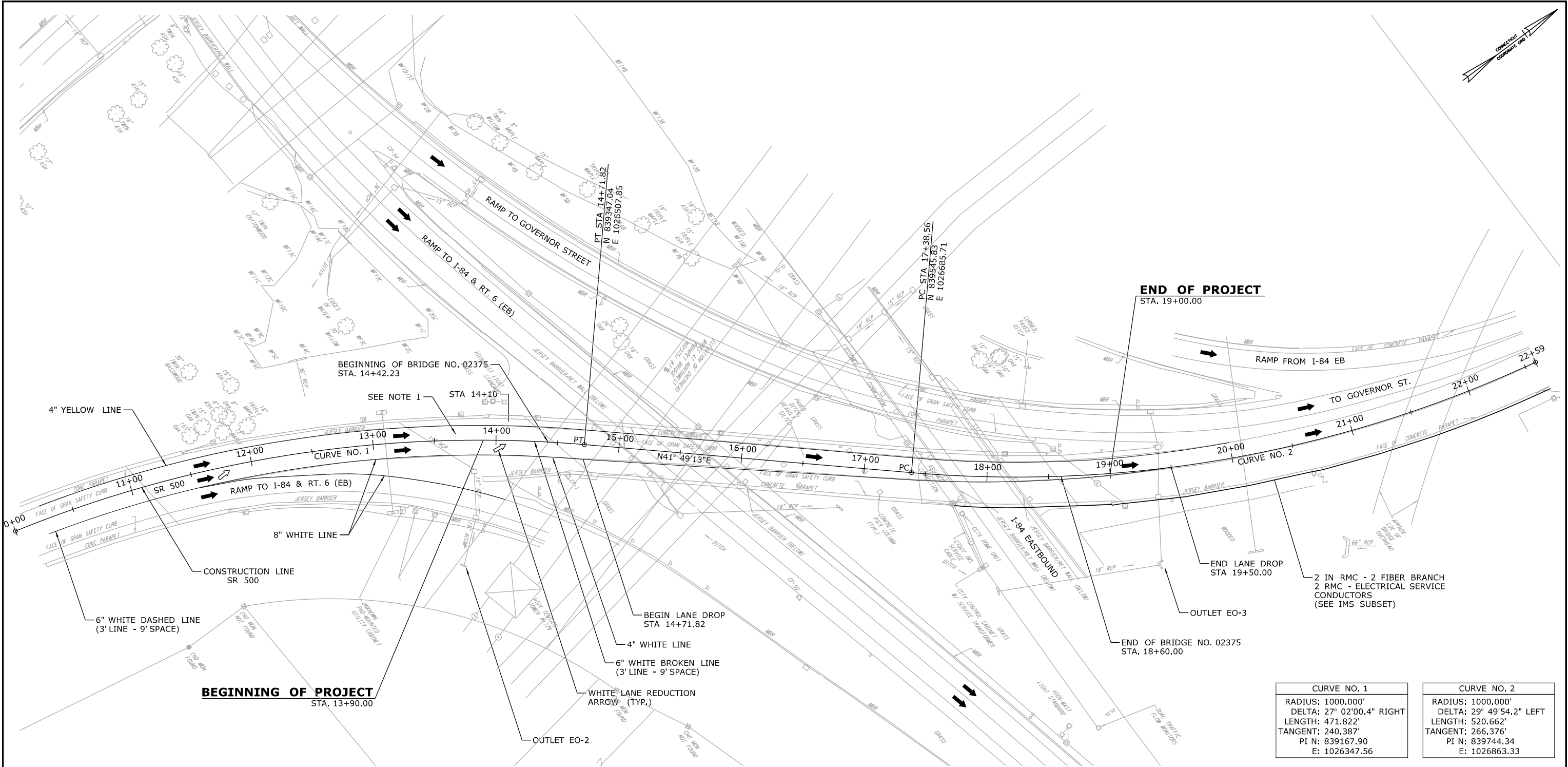


Plotted Date: 12/29/2014

SIGNATURE/ BLOCK:	PROJECT TITLE:
	<b>REPLACEMENT OF BRIDGE NO. 02374 SR 500 TR 805 OVER I-84 TR 831 &amp; TR 833</b>

TOWN:	<b>EAST HARTFORD</b>
DRAWING TITLE:	<b>ROADWAY PLAN</b>

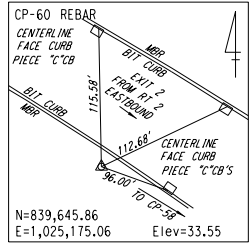
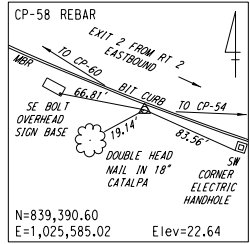
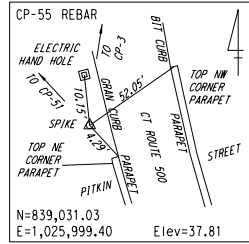
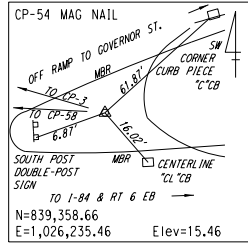
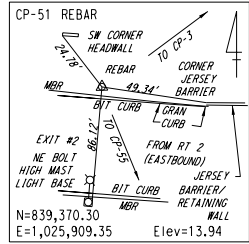
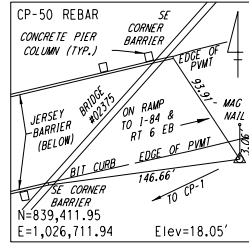
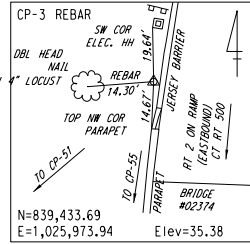
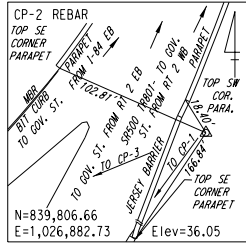
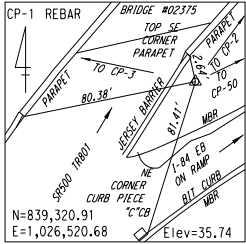
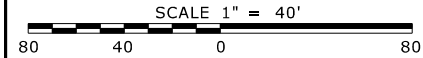
PROJECT NO.	<b>042-304</b>
DRAWING NO.	<b>HWY-03</b>
SHEET NO.	



CURVE NO. 1
RADIUS: 1000.000'
DELTA: 27° 02'00.4" RIGHT
LENGTH: 471.822'
TANGENT: 240.387'
PI N: 839167.90
E: 1026347.56

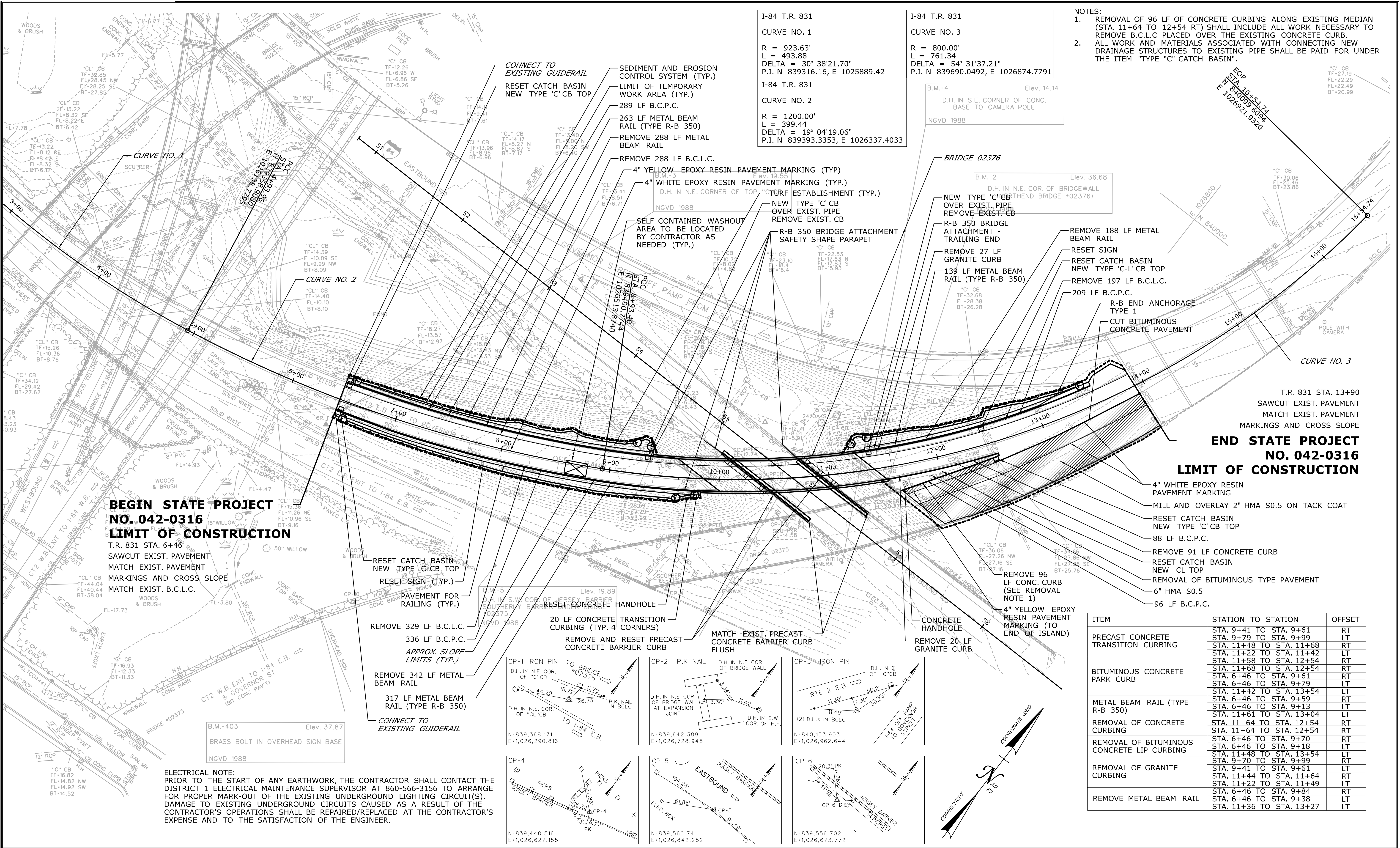
CURVE NO. 2
RADIUS: 1000.000'
DELTA: 29° 49'54.2" LEFT
LENGTH: 520.662'
TANGENT: 266.376'
PI N: 839744.34
E: 1026863.33

- NOTE:
1. AVOID IMPACTING EXISTING TRAFFIC MONITORING LOOPS LOCATED AT APPROXIMATELY STA 13+70.
  2. FINAL MARKINGS TO BE EPOXY RESIN.



DESIGNER/DRAFTER: <b>DJA / MTF</b>		PROJECT TITLE: <b>SR 500 TR 801 OVER I-84 EB AND I-84 TR 833</b>	TOWN: <b>EAST HARTFORD</b>	PROJECT NO. <b>042-305</b>
CHECKED BY: <b>EWM</b>				
SCALE AS NOTED			DRAWING TITLE: <b>ROADWAY PLAN</b>	DRAWING NO. <b>HWY-2</b>
REV. DATE REVISION DESCRIPTION SHEET NO.	Plotted Date: 12/29/2014	FILENAME: ...\\HW_MSH_042305_PLN-01_EPP.dgn		SHEET NO.





I-84 T.R. 831	I-84 T.R. 831
CURVE NO. 1	CURVE NO. 3
R = 923.63'	R = 800.00'
L = 493.88	L = 761.34
DELTA = 30° 38'21.70"	DELTA = 54° 31'37.21"
P.I. N 839316.16, E 1025889.42	P.I. N 839690.0492, E 1026874.7791
I-84 T.R. 831	
CURVE NO. 2	
R = 1200.00'	
L = 399.44	
DELTA = 19° 04'19.06"	
P.I. N 839393.3353, E 1026337.4033	

- NOTES:
- REMOVAL OF 96 LF OF CONCRETE CURBING ALONG EXISTING MEDIAN (STA. 11+64 TO 12+54 RT) SHALL INCLUDE ALL WORK NECESSARY TO REMOVE B.C.L.C PLACED OVER THE EXISTING CONCRETE CURB.
  - ALL WORK AND MATERIALS ASSOCIATED WITH CONNECTING NEW DRAINAGE STRUCTURES TO EXISTING PIPE SHALL BE PAID FOR UNDER THE ITEM "TYPE "C" CATCH BASIN".

T.R. 831 STA. 13+90  
SAWCUT EXIST. PAVEMENT  
MATCH EXIST. PAVEMENT  
MARKINGS AND CROSS SLOPE

**END STATE PROJECT  
NO. 042-0316  
LIMIT OF CONSTRUCTION**

ITEM	STATION TO STATION	OFFSET
PRECAST CONCRETE TRANSITION CURBING	STA. 9+41 TO STA. 9+61	RT
	STA. 9+79 TO STA. 9+99	LT
	STA. 11+48 TO STA. 11+68	RT
	STA. 11+22 TO STA. 11+42	LT
BITUMINOUS CONCRETE PARK CURB	STA. 11+68 TO STA. 12+54	RT
	STA. 6+46 TO STA. 9+61	RT
	STA. 6+46 TO STA. 9+79	LT
	STA. 11+42 TO STA. 13+54	LT
METAL BEAM RAIL (TYPE R-B 350)	STA. 6+46 TO STA. 9+59	RT
	STA. 6+46 TO STA. 9+13	LT
REMOVAL OF CONCRETE CURBING	STA. 11+64 TO STA. 12+54	RT
	STA. 11+64 TO STA. 12+54	RT
REMOVAL OF BITUMINOUS CONCRETE LIP CURBING	STA. 6+46 TO STA. 9+70	RT
	STA. 6+46 TO STA. 9+18	LT
REMOVAL OF GRANITE CURBING	STA. 11+48 TO STA. 13+54	LT
	STA. 9+70 TO STA. 9+99	RT
	STA. 9+41 TO STA. 11+64	RT
	STA. 11+22 TO STA. 11+49	LT
REMOVAL OF METAL BEAM RAIL	STA. 6+46 TO STA. 9+84	RT
	STA. 6+46 TO STA. 9+38	LT
	STA. 11+36 TO STA. 13+27	LT

ELECTRICAL NOTE:  
PRIOR TO THE START OF ANY EARTHWORK, THE CONTRACTOR SHALL CONTACT THE DISTRICT 1 ELECTRICAL MAINTENANCE SUPERVISOR AT 860-566-3156 TO ARRANGE FOR PROPER MARK-OUT OF THE EXISTING UNDERGROUND LIGHTING CIRCUIT(S). DAMAGE TO EXISTING UNDERGROUND CIRCUITS CAUSED AS A RESULT OF THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED/REPLACED AT THE CONTRACTOR'S EXPENSE AND TO THE SATISFACTION OF THE ENGINEER.

REV. DATE

REVISION DESCRIPTION

SHEET NO.

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

Plotted Date: 11/18/2014

DESIGNER/DRAFTER:  
**KG**

CHECKED BY:  
**JE**

SCALE IN FEET  
0 40 80  
SCALE 1"=40'

**STATE OF CONNECTICUT  
DEPARTMENT OF TRANSPORTATION**

Filename: ...\\HW\_MSH\_042-0316\_PLN.dgn

SIGNATURE/  
BLOCK:

**Stantec Consulting  
Services Inc.**  
2321 Whitney Ave.  
Hamden, CT 06518

PROJECT TITLE:

**REHABILITATION OF  
BRIDGE NO. 02376  
I-84 T.R. 831 OVER I-84 EB**

TOWN:

**EAST HARTFORD**

PROJECT NO.

**042-316**

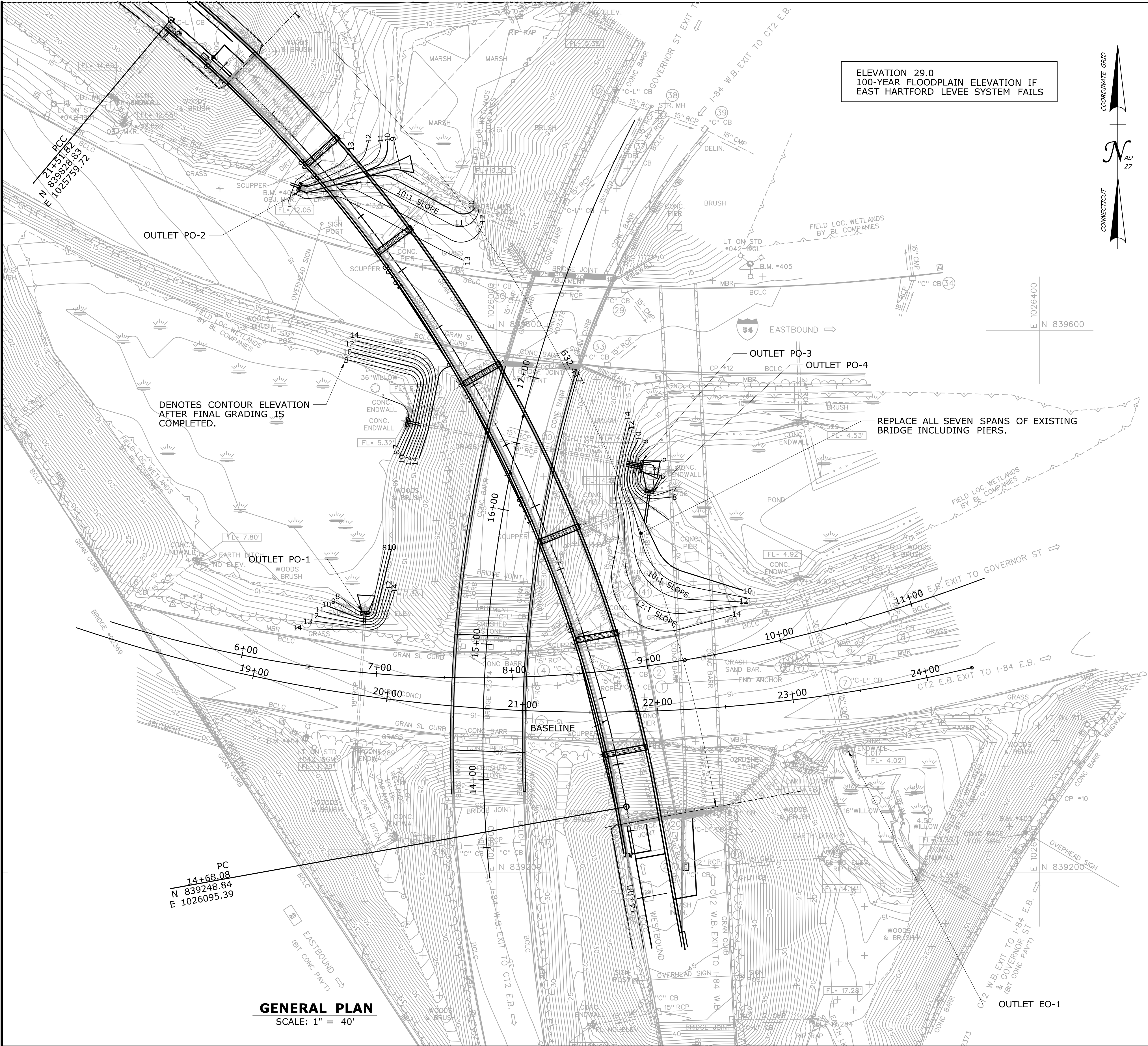
DRAWING NO.

**PLN-01**

SHEET NO.

**03.03.04**






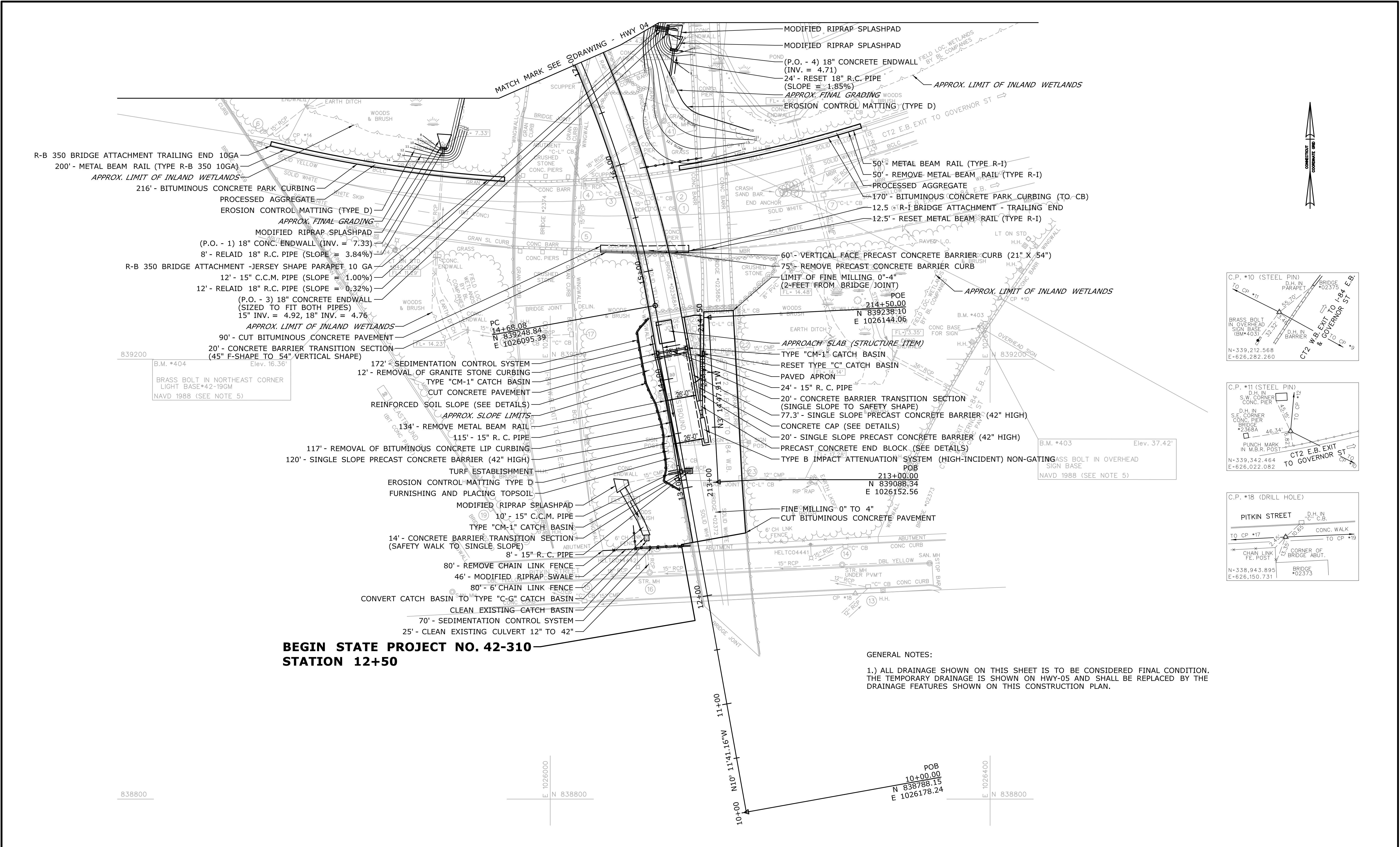
GENERAL NOTES

- SPECIFICATIONS: CONNECTICUT DEPARTMENT OF TRANSPORTATION FORM 816 DATED 2004, SUPPLEMENTAL SPECIFICATIONS DATED JULY 2014 AND SPECIAL PROVISIONS.
- DESIGN SPECIFICATIONS: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS FOR HIGHWAY BRIDGES (AASHTO-2014) SEVENTH EDITION, AS SUPPLEMENTED BY THE CONNECTICUT DEPARTMENT OF TRANSPORTATION BRIDGE DESIGN MANUAL (2003)
- DESIGN STRESSES:
- STRUCTURAL STEEL - AASHTO M270, GRADE 50 T2, BASED ON  $F_y = 50,000$  PSI  
CONCRETE PEDESTAL: BASED ON  $F_c' = 4,500$  PSI  
CLASS "F" CONCRETE AND BRIDGE DECK CONCRETE: BASED ON  $F_c' = 4,000$  PSI  
CLASS "A" CONCRETE: BASED ON  $F_c' = 3,000$  PSI  
REINFORCEMENT - ASTM A615: BASED ON  $F_y = 60,000$  PSI
- THE SPECIFIED CONCRETE STRENGTH USED IN DESIGN,  $F_c'$ , OF THE CONCRETE COMPONENTS IS NOTED ABOVE. THE MINIMUM COMPRESSIVE STRENGTH OF THE CONCRETE IN THE CONSTRUCTED COMPONENTS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 6.01 CONCRETE FOR STRUCTURES.  
NOTE: MINIMUM COMPRESSIVE STRENGTH OF BRIDGE DECK CONCRETE AND PEDESTAL CONCRETE SHALL CONFORM TO THE REQUIREMENTS SET IN THEIR CORRESPONDING SPECIAL PROVISIONS.
- LIVE LOAD: HL 93
- FUTURE PAVING ALLOWANCE: NONE
- STRUCTURAL STEEL: GIRDERS TO BE GRADE 50 WEATHERING STEEL. SEE STRUCTURE NOTES FOR DESIGNATIONS AND REQUIREMENTS.
- HOT MIX ASPHALT: 2" HMA S0.5 ON 1" HMA S0.25.  
ALSO USE THIS HMA COMPOSITION ON APPROACH SLABS
- DIMENSIONS: WHEN DECIMAL DIMENSIONS ARE GIVEN TO LESS THAN THREE DECIMAL PLACES, THE OMITTED DIGITS SHALL BE ASSUMED TO BE ZEROS.
- EXISTING DIMENSIONS: DIMENSIONS OF THE EXISTING STRUCTURE SHOWN ON THESE PLANS ARE FOR GENERAL REFERENCE ONLY. THEY HAVE BEEN TAKEN FROM THE ORIGINAL DESIGN DRAWINGS AND ARE NOT GUARANTEED. THE CONTRACTOR SHALL TAKE ALL FIELD MEASUREMENTS NECESSARY TO ASSURE PROPER FIT OF THE FINISHED WORK AND SHALL ASSUME FULL RESPONSIBILITY FOR THEIR ACCURACY.
- COMPOSITE CONSTRUCTION:  
CONSTRUCTION LOADS AND DEAD LOADS (INCLUDING PARAPETS) WILL BE PERMITTED WHEN DIRECTED BY THE ENGINEER BUT ONLY WHEN THE CONCRETE HAS REACHED A STRENGTH OF  $F_c' = 3500$  PSI. LIVE LOADS (TRAFFIC) WILL BE PERMITTED ON THE STRUCTURE AFTER THE CONCRETE HAS REACHED A STRENGTH OF  $F_c' = 4000$  PSI
- CLASS "F" CONCRETE: CLASS "F" CONCRETE SHALL BE USED FOR THE DECK SLAB (EXCEPT AT PIERS 1,3,4, AND 5, WHERE "BRIDGE DECK CONCRETE" SHALL BE USED FOR LINK SLABS). CLASS "F" CONCRETE SHALL ALSO BE USED FOR SUPERSTRUCTURE PARAPETS (EXCEPT AT PIERS 1,3,4, AND 5, WHERE "BRIDGE DECK CONCRETE" SHALL BE USED FOR PARAPETS IN LINK SLAB REGION). CLASS "F" CONCRETE SHALL ALSO BE USED FOR THE COLUMNS, WINGWALL STEMS, AND WINGWALL PARAPETS.
- CLASS "A" CONCRETE: CLASS "A" CONCRETE SHALL BE USED FOR THE ABUTMENT RECONSTRUCTIONS AND APPROACH SLABS.
- PARAFFIN: THE COST OF FURNISHING AND APPLYING PARAFFIN TO THE PARAPET JOINTS SHALL BE INCLUDED IN THE ITEM FOR CLASS "F" CONCRETE OR "BRIDGE DECK CONCRETE" WHERE APPLICABLE.
- CONCRETE PEDESTALS: THE CONCRETE USED FOR ALL NEW PEDESTALS SHALL BE A HIGH PERFORMANCE CONCRETE WITH MINIMUM  $F_c' = 5000$  PSI  
SEE SPECIAL PROVISION "CONCRETE PEDESTALS"
- REMAIN-IN-PLACE FORMS: THE USE OF REMAIN-IN-PLACE FORMS SHALL BE REQUIRED IN ALL LOCATIONS EXCEPT ABOVE PIERS, AT ENDS OF SLABS, AND UNDER CANTILEVER SLABS SUCH AS THE OVERHANG OUTSIDE OF FASCIA GIRDERS. THE GIRDERS HAVE BEEN DESIGNED FOR THE ADDITIONAL WEIGHT OF 5 POUNDS PER SQUARE FOOT FOR THE REMAIN-IN-PLACE FORMS. A LIGHTWEIGHT POLYSTYRENE SHALL BE USED TO FILL IN THE VALLEYS OF THE STAY IN PLACE FORM PANS.
- CONSTRUCTION JOINTS: CONSTRUCTION JOINTS OTHER THAN THOSE SHOWN ON THE PLANS WILL NOT BE PERMITTED WITHOUT PRIOR APPROVAL OF THE ENGINEER.
- EXPOSED EDGES: EXPOSED EDGES OF CONCRETE SHALL BE BEVELED 1" X 1" UNLESS DIMENSIONED OTHERWISE.
- CONCRETE COVER: ALL REINFORCEMENT SHALL HAVE TWO INCHES COVER UNLESS DIMENSIONED OTHERWISE
- REINFORCEMENT: ALL REINFORCEMENT SHALL BE ASTM A615 GRADE 60
- EPOXY COATED REINFORCING BARS: ALL REINFORCEMENT IN THE SUPERSTRUCTURE INCLUDING THE CONCRETE DECK SLAB, PARAPETS, THE WINGWALL PARAPETS, AND THE NEW APPROACH SLABS SHALL BE EPOXY COATED UNLESS OTHERWISE NOTED. THESE BARS SHALL BE INCLUDED IN THE PAY ITEM FOR "DEFORMED STEEL BARS (EPOXY COATED)". ALL REINFORCEMENT IN THE SUBSTRUCTURE, INCLUDING PIER CAPS, AND THE COLUMNS SHALL BE UNCOATED BLACK BAR UNLESS OTHERWISE NOTED
- CLOSED CELL ELASTOMER: THE COST OF FURNISHING AND INSTALLING CLOSED CELL ELASTOMER SHALL BE INCLUDED IN THE COST OF THE ITEM "CLASS "A" CONCRETE"
- MEMBRANE WATERPROOFING (COLD LIQUID ELASTOMERIC): COLD LIQUID ELASTOMERIC SHALL BE PLACED ON THE BRIDGE DECK AND APPROACH SLABS AFTER THEY HAVE BEEN POURED AND CURED. THE COLD LIQUID ELASTOMERIC SHALL EXTEND 2'+ UP THE CURBS.
- PAINT: PAINTING OF THE STRUCTURAL STEEL IS ONLY REQUIRED AT THE ENDS OF THE GIRDERS LOCATED UNDER THE JOINTS AT PIERS 2 AND 6. THE STEEL SURFACES TO BE PAINTED SHALL BE PREPARED IN ACCORDANCE WITH THE SPECIAL PROVISION "STRUCTURAL STEEL (SITE NO. 4)." PAINT SHALL BE BROWN FEDERAL STANDARD 595 COLOR NO. 20062. OTHER STEEL SURFACES SHALL BE PREPARED FOR WEATHERING IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

GENERAL PLAN  
SCALE: 1" = 40'


						THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.		DESIGNER/DRAFTER: <b>RDH</b>		 <b>STATE OF CONNECTICUT</b> <b>DEPARTMENT OF TRANSPORTATION</b>		SIGNATURE/ BLOCK:		PROJECT TITLE:  <b>REHABILITATION OF BRIDGE NO. 02368A ROUTE 2 WB. OVER I-84 TR. 831 &amp; 833</b>		TOWN:  <b>EAST HARTFORD</b>		PROJECT NO. <b>42-310</b>	
						CHECKED BY: <b>RDD</b>		DRAWING NO.											
						SCALE AS NOTED		SHEET NO.											
REV.	DATE	REVISION DESCRIPTION		SHEET NO.	Plotted Date: 12/11/2014				Filename: ...1042-310 Copy General Plan.dgn										



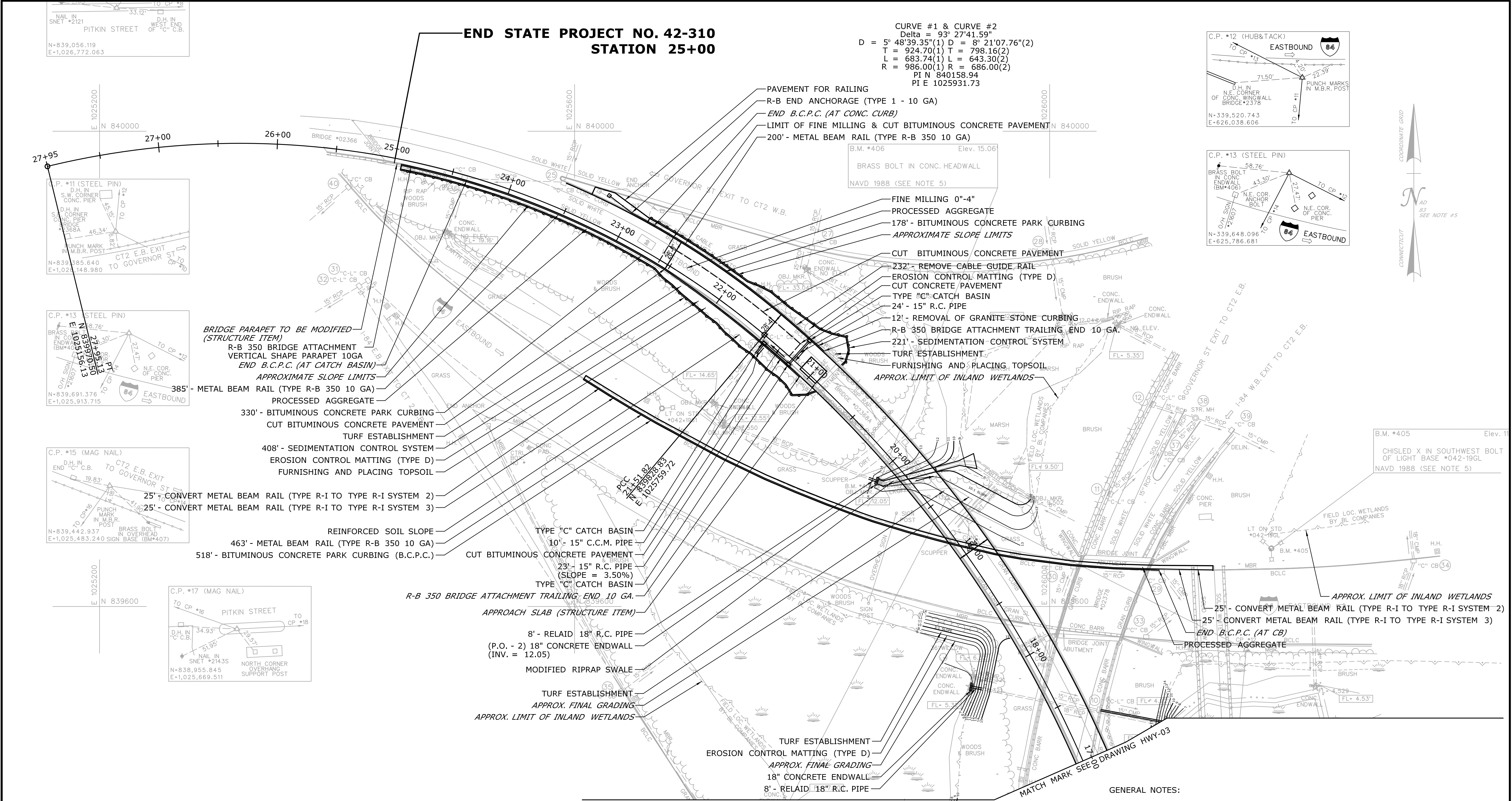




**BEGIN STATE PROJECT NO. 42-310  
STATION 12+50**

GENERAL NOTES:  
1.) ALL DRAINAGE SHOWN ON THIS SHEET IS TO BE CONSIDERED FINAL CONDITION.  
THE TEMPORARY DRAINAGE IS SHOWN ON HWY-05 AND SHALL BE REPLACED BY THE  
DRAINAGE FEATURES SHOWN ON THIS CONSTRUCTION PLAN.

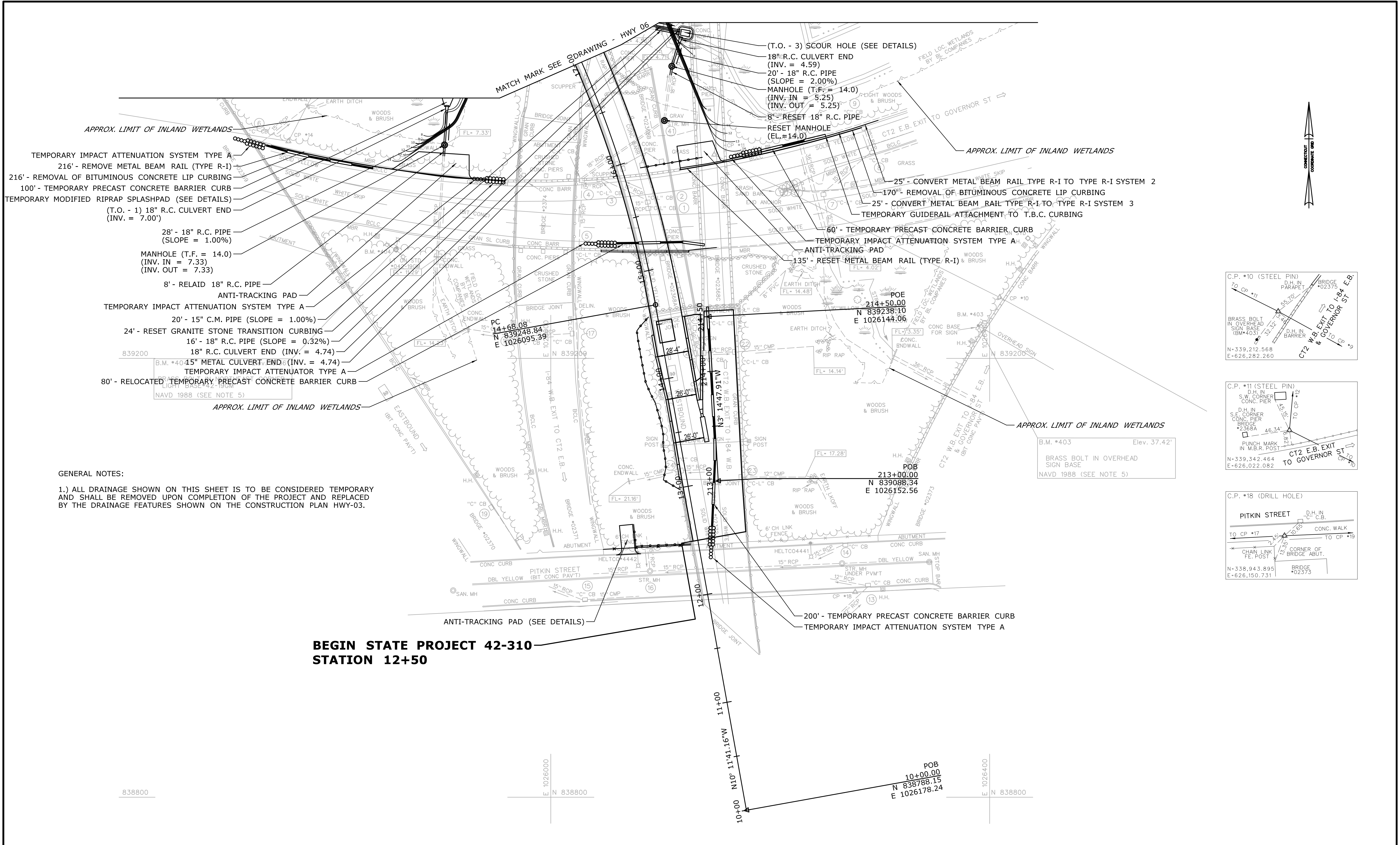
				DESIGNER/DRAFTER: <b>A. CORNEIRO</b> CHECKED BY: <b>A. LeBLANC</b> SCALE IN FEET 0 40 80 SCALE 1"=40'	 <b>STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION</b> Filename: ...\\HW_MSH_0042_0310_HWY-03.dgn	SIGNATURE/ BLOCK: <b>OFFICE OF ENGINEERING</b> APPROVED BY:	PROJECT TITLE: <b>REHABILITATION OF BRIDGE No. 02368A ROUTE 2 WB OVER I-84 TR. 831 &amp; 833</b>	TOWN: <b>EAST HARTFORD</b> DRAWING TITLE: <b>CONSTRUCTION PLAN</b>	PROJECT NO. <b>42-310</b> DRAWING NO. <b>HWY-03</b> SHEET NO.
REV.	DATE	REVISION DESCRIPTION	SHEET NO.	Plotted Date: 12/23/2014					





						THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.		DESIGNER/DRAFTER: <b>A. CORNEIRO</b>		 <b>STATE OF CONNECTICUT</b> <b>DEPARTMENT OF TRANSPORTATION</b>		 <b>OFFICE OF ENGINEERING</b>		SIGNATURE/ BLOCK:  <	
--	--	--	--	--	--	---	--	---	--	---	--	---	--	---	--





				THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.		DESIGNER/DRAFTER: <b>A. CORNEIRO</b> CHECKED BY: <b>A. LeBLANC</b> SCALE IN FEET 0 40 80 SCALE 1"=40'	 <b>STATE OF CONNECTICUT</b> <b>DEPARTMENT OF TRANSPORTATION</b> Filename: ...\\HW_MSH_0042_0310_HWY-05_TEMP_CONST.dgn	SIGNATURE/ BLOCK: <b>OFFICE OF ENGINEERING</b> APPROVED BY:	PROJECT TITLE: <b>REHABILITATION OF BRIDGE No. 02368A ROUTE 2 WB OVER TR. 831 &amp; 833</b>	TOWN: <b>EAST HARTFORD</b>	PROJECT NO. <b>42-310</b>
REV.	DATE	REVISION DESCRIPTION	SHEET NO.	Plotted Date: 12/23/2014						DRAWING TITLE: <b>TEMPORARY DRAINAGE &amp; GUIDE RAIL DETAILS</b>	SHEET NO. <b>HWY-05</b>

NAIL IN  
SNET #2121  
PITKIN STREET  
WEST END  
OF "C" C.B.  
N=839,056.119  
E=1,026,772.063

C.P. #11 (STEEL PIN)  
D.H. IN  
S.W. CORNER  
CONC. PIER  
D.H. IN  
S.W. CORNER  
CONC. PIER  
BRIDGE #2368A  
PUNCH MARK  
IN W.B.R. POST  
CT2 E.B. EXIT  
TO GOVERNOR ST  
TO CP #10  
N=839,385.640  
E=1,025,148.980

C.P. #13 (STEEL PIN)  
BRASS BOLT  
IN CONC.  
ENDWALL  
(BM#406)  
D.H. IN  
N.E. COR.  
OF CONC.  
PIER  
TO CP #12  
TO CP #14  
N=839,691.376  
E=1,025,913.715

C.P. #15 (MAG NAIL)  
D.H. IN  
END "C" C.B.  
TO CT2 E.B. EXIT  
TO GOVERNOR ST  
TO CP #14  
PUNCH MARK  
IN W.B.R. POST  
BRASS BOLT  
IN OVERHEAD  
SIGN BASE (BM#407)  
N=839,442.937  
E=1,025,483.240

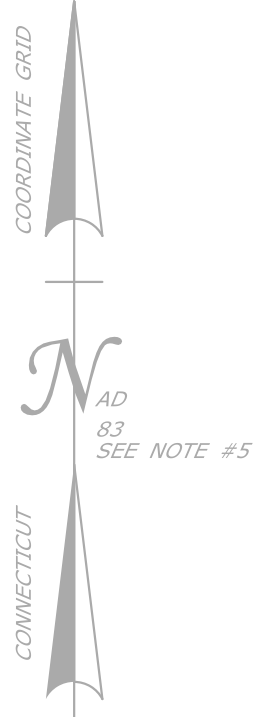
C.P. #17 (MAG NAIL)  
D.H. IN  
SNET #21435  
NORTH CORNER  
OVERHANG  
SUPPORT POST  
TO CP #16  
TO CP #18  
N=838,955.845  
E=1,025,669.511

END STATE PROJECT 42-310  
STATION 25+00

CURVE #1 & CURVE #2  
Delta = 93° 27'41.59"  
D = 5° 48'39.35"(1) D = 8° 21'07.76"(2)  
T = 924.70(1) T = 798.16(2)  
L = 683.74(1) L = 643.30(2)  
R = 986.00(1) R = 686.00(2)  
PI N 840158.94  
PI E 1025931.73

C.P. #12 (HUB&TACK)  
D.H. IN  
N.E. CORNER  
OF CONC. WINGWALL  
BRIDGE #2378  
PUNCH MARKS  
IN M.B.R. POST  
TO CP #13  
TO CP #11  
N=339,520.743  
E=626,038.606

C.P. #13 (STEEL PIN)  
BRASS BOLT  
IN CONC.  
ENDWALL  
(BM#406)  
D.H. IN  
N.E. COR.  
OF CONC.  
PIER  
TO CP #12  
TO CP #14  
N=339,648.096  
E=625,786.681



- 330' - REMOVAL OF BITUMINOUS CONCRETE LIP CURBING
- 518' - REMOVAL OF BITUMINOUS CONCRETE LIP CURBING
- 25' - CONVERT METAL BEAM RAIL TYPE R-I TO TYPE R-I SYSTEM 2
- 25' - CONVERT METAL BEAM RAIL TYPE R-I TO TYPE R-I SYSTEM 3
- TEMPORARY GUIDERAIL ATTACHMENT TO T.P.B. CURBING
- 60' - TEMPORARY PRECAST CONCRETE BARRIER CURB
- 450' - REMOVE METAL BEAM RAIL (TYPE R-I)
- ANTI-TRACKING PAD
- TEMPORARY IMPACT ATTENUATION SYSTEM TYPE A
- 120' - TEMPORARY PRECAST CONCRETE BARRIER CURB

GENERAL NOTES:

1.) ALL DRAINAGE SHOWN ON THIS SHEET IS TO BE CONSIDERED TEMPORARY AND SHALL BE REMOVED UPON COMPLETION OF THE PROJECT AND REPLACED BY THE DRAINAGE FEATURES SHOWN ON THE CONSTRUCTION PLAN HWY-04.


8' - 18" R.C. PIPE  
(SLOPE = 0.35%)  
MANHOLE  
(T.O. = 14.0)  
(INVERT IN = 12.05)  
(INVERT OUT = 11.05)  
18" R.C. CULVERT END  
(INVERT = 5.40)

24' - 18" R.C. PIPE  
(SLOPE = 0.32%)

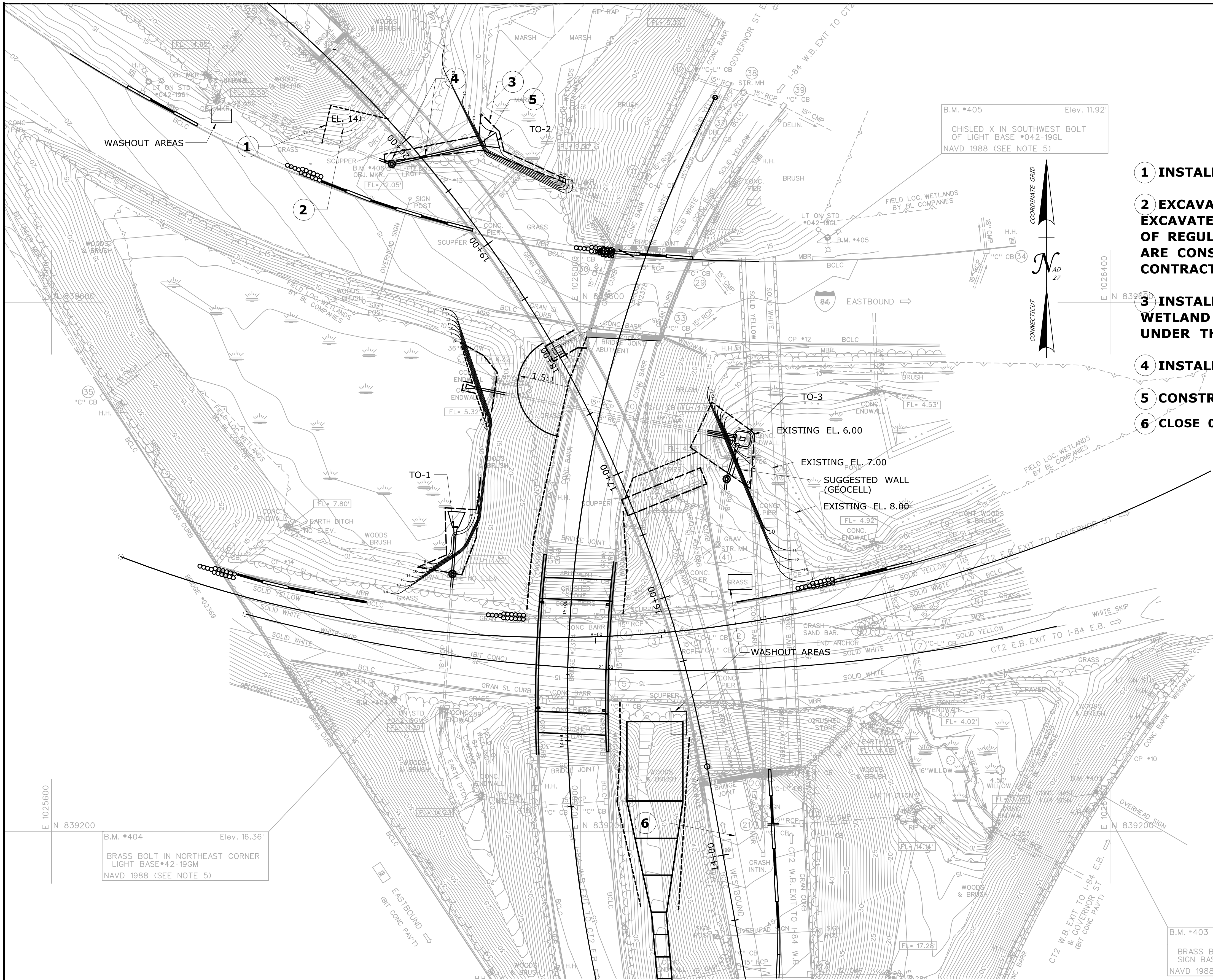
166' - REMOVAL OF BITUMINOUS CONCRETE LIP CURBING  
12' - REMOVAL OF GRANITE STONE CURBING  
B.M. #406 Elev. 15.06'  
BRASS BOLT IN CONC. HEADWALL  
NAVD 1988 (SEE NOTE 5)

64' - 18" R.C. PIPE  
(SLOPE = 2.00%)  
(T.O. = 2) 18" - R.C. CULVERT END  
(INVERT = 9.65)  
MODIFIED RIPRAP SPLASHPAD  
(SEE DETAILS)

ANTI-TRACKING PAD  
TEMPORARY IMPACT ATTENUATION SYSTEM TYPE A  
60' - TEMPORARY CONCRETE BARRIER CURB  
TEMPORARY GUIDERAIL ATTACHMENT TO T.P.C.B. CURBING  
25' - CONVERT METAL BEAM RAIL TYPE R-I TO TYPE R-I SYSTEM 3  
25' - CONVERT METAL BEAM RAIL TYPE R-I TO TYPE R-I SYSTEM 2

				THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.		DESIGNER/DRAFTER: <b>A. CORNEIRO</b> CHECKED BY: <b>A. LeBLANC</b> SCALE IN FEET <div><div></div><div>04080</div></div> SCALE 1"=40'		<div><div></div><div><b>STATE OF CONNECTICUT</b> <b>DEPARTMENT OF TRANSPORTATION</b></div></div> <div>Filename: ...\\HW_MSH_0042_0310_HWY-06_TEMP_CONST.dgn</div>		SIGNATURE/ BLOCK: <b>OFFICE OF ENGINEERING</b>  APPROVED BY:		PROJECT TITLE: <b>REHABILITATION OF BRIDGE No. 02368A ROUTE 2 WB OVER I-84 TR. 831 &amp; 833</b>		TOWN: <b>EAST HARTFORD</b>		PROJECT NO. <b>42-310</b> DRAWING NO. <b>HWY-06</b> SHEET NO.	
REV.	DATE	REVISION DESCRIPTION		SHEET NO.	Plotted Date: 12/23/2014							DRAWING TITLE: <b>TEMPORARY DRAINAGE &amp; GUIDE RAIL DETAILS</b>					





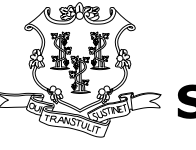
PLAN VIEW  
SCALE: 1" = 40'

**SUGGESTED CONSTRUCTION WORK  
(BEGINING OF SEASON 2)**

- 1 INSTALL TEMPORARY EARTH RETAINING SYSTEM "TERS".**
- 2 EXCAVATE AND STOCKPILE EMBANKMENT MATERIAL. EXCAVATED MATERIAL SHALL BE STOCKPILED OUTSIDE OF REGULATED AREAS. ALL LOCATIONS ON THIS SHEET ARE CONSIDERED A REGULATED AREA. SEE "NOTICE TO CONTRACTOR-STAGING AND STORAGE AREAS".**
- 3 INSTALL COFFERDAMS AND DEWATER ALONG EDGE OF WETLAND IMPACT AREAS. THIS WORK SHALL BE PAID FOR UNDER THE ITEM "CONSTRUCTION ACCESS".**
- 4 INSTALL MANHOLES AND EXTEND PIPES**
- 5 CONSTRUCT SPLASH PADS**
- 6 CLOSE 02368A TO TRAFFIC AND INITIATE ROUTE 2 DETOUR**

REV.	DATE	REVISION DESCRIPTION	SHEET NO.	Plotted Date: 12/11/2014

DESIGNER/DRAFTER:  
**BU**  
CHECKED BY:  
**RDD**  
SCALE AS NOTED

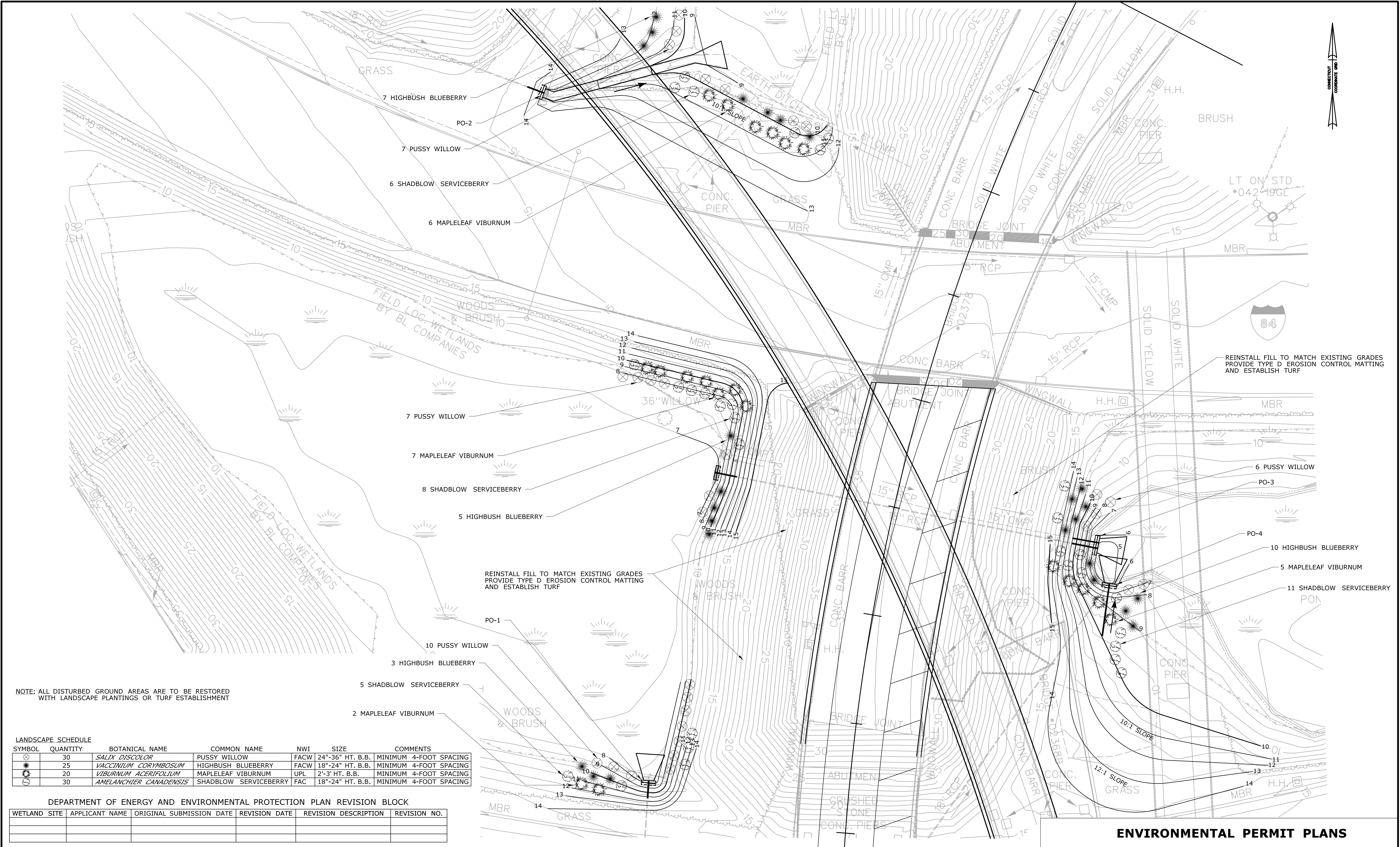
**STATE OF CONNECTICUT**  
**DEPARTMENT OF TRANSPORTATION**  
Filename: ...\\Stormwater Permit\\Washout Areas.dgn

SIGNATURE/  
BLOCK:  
**OFFICE OF ENGINEERING**  
APPROVED BY:

PROJECT TITLE:  
**REHABILITATION OF BRIDGE  
NO. 02368A ROUTE 2WB.  
OVER I-84 TR.831 & 833**

TOWN: <b>EAST HARTFORD</b>	PROJECT NO. <b>42-310</b>
DRAWING TITLE: <b>STORMWATER PERMIT WASHOUT AREAS</b>	DRAWING NO.
	SHEET NO.





NOTE: ALL DISTURBED GROUND AREAS ARE TO BE RESTORED WITH LANDSCAPE PLANTINGS OR TURF ESTABLISHMENT

LANDSCAPE SCHEDULE						
SYMBOL	QUANTITY	BOTANICAL NAME	COMMON NAME	NWI	SIZE	COMMENTS
	30	<i>SALIX DISCOLOR</i>	PUSSY WILLOW	FACW	24"-36" HT. B.B.	MINIMUM 4-FOOT SPACING
	25	<i>VACCINIUM CORYMBOSUM</i>	HIGHBUSH BLUEBERRY	FACW	18"-24" HT. B.B.	MINIMUM 4-FOOT SPACING
	20	<i>VIBURNUM ACERIFOLIUM</i>	MAPLELEAF VIBURNUM	UPL	2'-3' HT. B.B.	MINIMUM 4-FOOT SPACING
	30	<i>AMELANCHIER CANADENSIS</i>	SHADBLOW SERVICEBERRY	FAC	18"-24" HT. B.B.	MINIMUM 4-FOOT SPACING

DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION PLAN REVISION BLOCK					
WETLAND SITE	APPLICANT NAME	ORIGINAL SUBMISSION DATE	REVISION DATE	REVISION DESCRIPTION	REVISION NO.

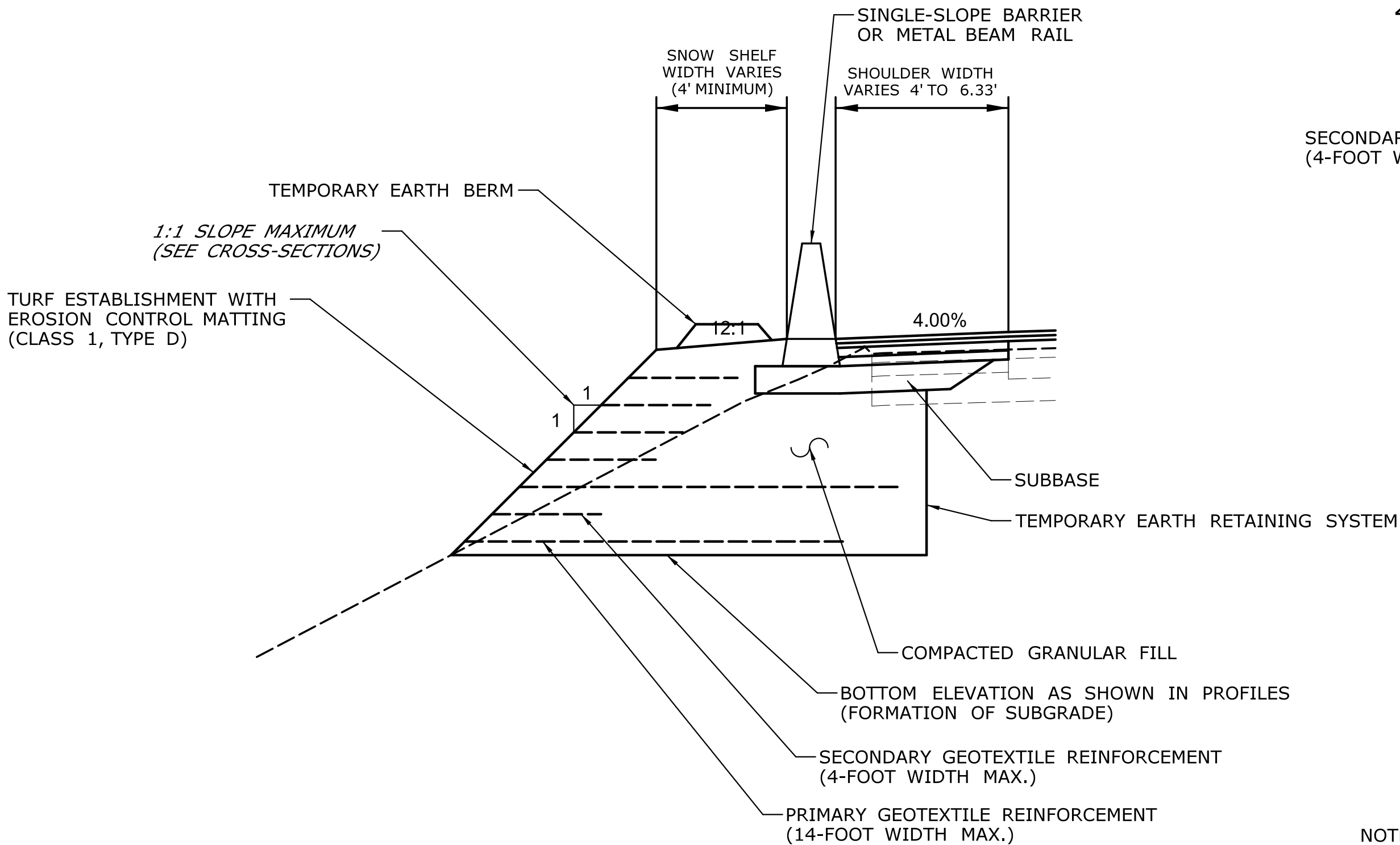
<table><tr><td>REV.</td><td>DATE</td><td>REVISION DESCRIPTION</td><td>SHEET NO.</td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr></table>				REV.	DATE	REVISION DESCRIPTION	SHEET NO.					THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.		DESIGNER/DRAFTER: <b>DMC</b> CHECKED BY: <b>KL</b> SCALE IN FEET 0 20 40 SCALE 1"=20'		 <b>STATE OF CONNECTICUT</b> <b>DEPARTMENT OF TRANSPORTATION</b> Filename: ...\\HW_EPP_042-304-310_LDS-01.dgn		SIGNATURE/ BLOCK:		PROJECT TITLE: <b>REPLACEMENT OF BRIDGE NO. 02374 AND REHABILITATION OF BRIDGE NO. 02368A</b>		TOWN: <b>EAST HARTFORD</b> DRAWING TITLE: <b>LANDSCAPING PLAN</b>		PROJECT NO. <b>042-304/310</b> DRAWING NO. <b>EPP-06</b> SHEET NO.	
REV.	DATE	REVISION DESCRIPTION	SHEET NO.																						



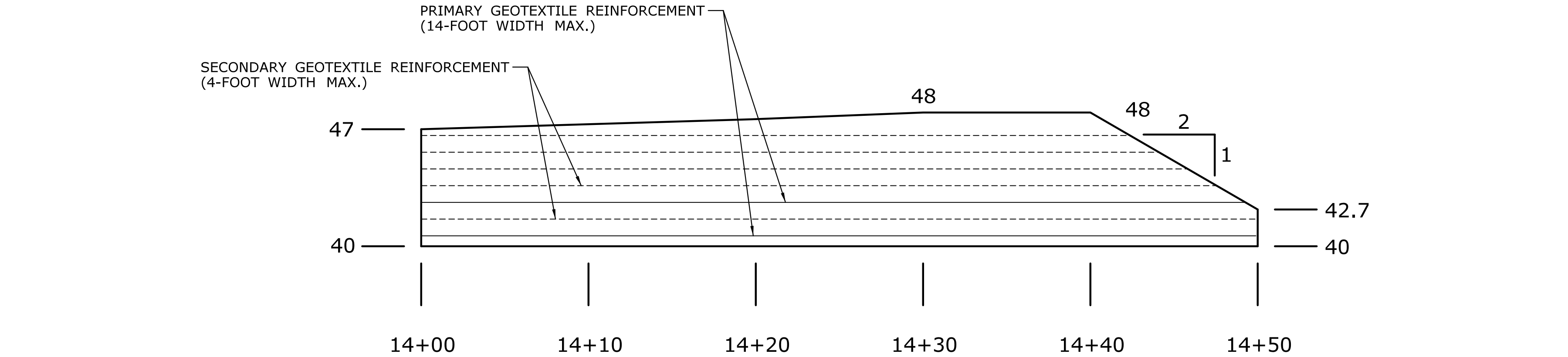
REINFORCED SLOPE QUANTITIES

STATION	LAYER WIDTHS	SLOPE ANGLE	BOTTOM ELEV	APPROX BANK HEIGHT	TEMP EARTH SYSTEM HEIGHT
14+00 LT	14-4-14-4-4-4	1:1	40	7.0	5.0
14+10 LT	14-4-14-4-4-4	1:1	40	7.3	5.3
14+20 LT	14-4-14-4-4-4-4	1:1	40	7.6	5.7
14+30 LT	14-4-14-4-4-4-4	1:1	40	8.0	6.0
14+40 LT	14-4-14-4-4-4-4	1:1	40	8.0	5.9
14+50 LT		2:1	40	2.7	Ret. Wall

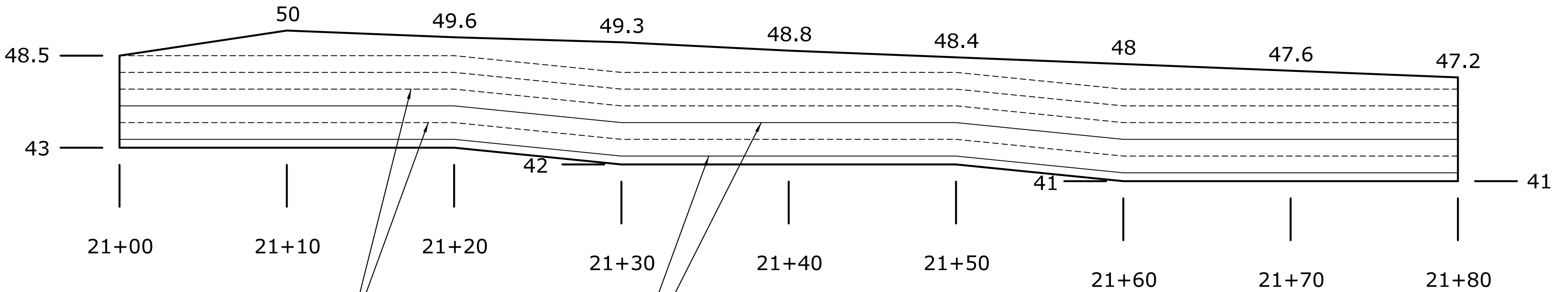
STATION	LAYER WIDTHS	SLOPE ANGLE	BOTTOM ELEV	APPROX BANK HEIGHT	TEMP EARTH SYSTEM HEIGHT
21+00 LT	11-4-8-4-4	1.5:1	43	5.5	Ret. Wall
21+10 LT	14-4-14-4-4-4	1:1	43	7.0	4.7
21+20 LT	14-4-14-4-4-4	1:1	43	6.6	4.3
21+30 LT	14-4-14-4-4-4	1:1	42	7.3	4.9
21+40 LT	14-4-14-4-4-4	1:1	42	6.8	4.5
21+50 LT	14-4-14-4-4-4	1:1	42	6.4	4.1
21+60 LT	14-4-14-4-4-4	1:1	41	7.0	4.7
21+70 LT	14-4-14-4-4-4	1:1	41	6.6	4.4
21+80 LT	14-4-14-4-4	1:1	41	6.2	4



TYPICAL DETAIL FOR REINFORCED SOIL SLOPE



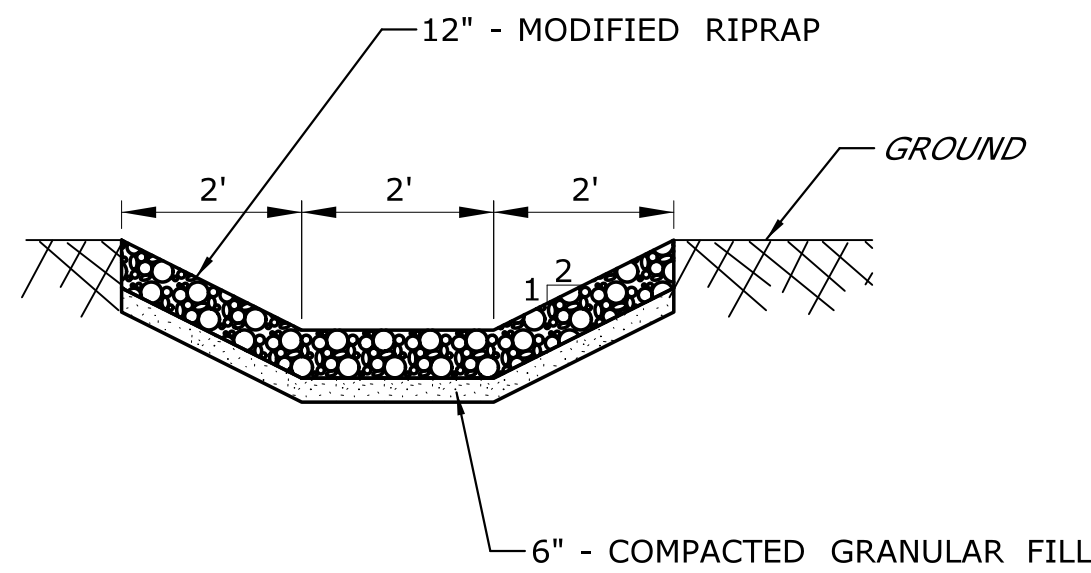
REINFORCED SOIL SLOPE SOUTH-WEST PROFILE



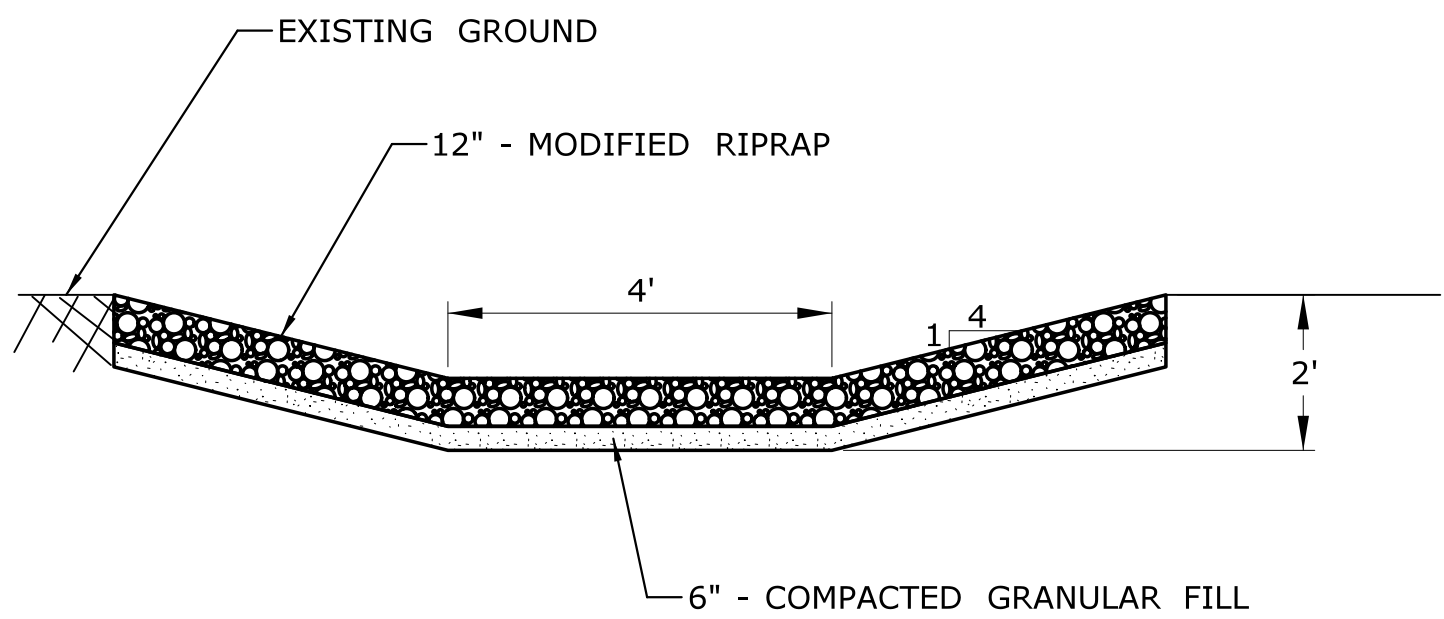
REINFORCED SOIL SLOPE NORTH-WEST PROFILE

NOTE: TEMPORARY EARTH BERM IS TO BE INSTALLED UPON COMPLETION OF THE REINFORCED SOIL SLOPE AND SHALL REMAIN IN PLACE UNTIL THE CURBING IS INSTALLED AT THE TOP OF THE SLOPE. AFTER THE CURBING IS INSTALLED AT THE TOP OF THE SLOPE, THE CONTRACTOR SHALL REMOVE THE BERM AND SEED THE SNOW SHELF.

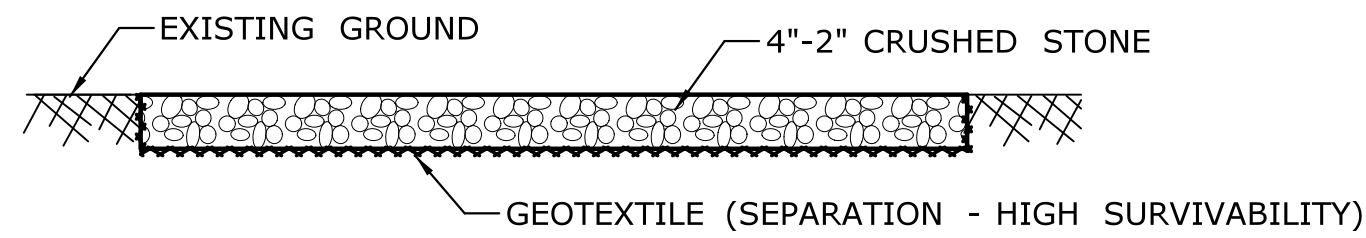
REV.	DATE	REVISION DESCRIPTION	SHEET NO.	Plotted Date: 11/21/2014	DESIGNER/DRAFTER: <b>A. CORNEIRO</b> CHECKED BY: <b>A. LeBLANC</b> NOT TO SCALE	 <b>STATE OF CONNECTICUT</b> <b>DEPARTMENT OF TRANSPORTATION</b> Filename: ...\\HW..MSH..0042..0310..MDS-03.dgn	SIGNATURE/ BLOCK: <b>OFFICE OF ENGINEERING</b> APPROVED BY:	PROJECT TITLE: <b>REHABILITATION OF BRIDGE</b> <b>No. 02386A ROUTE 2 WB</b> <b>OVER I-84 TR. 831 &amp; 833</b>	TOWN: <b>EAST HARTFORD</b> DRAWING TITLE: <b>REINFORCED SOIL SLOPE</b>	PROJECT NO. <b>42-310</b> DRAWING NO. <b>MDS-03</b> SHEET NO. <b>04.03.05</b>
------	------	----------------------	-----------	--------------------------	---	--	--	---	---	--



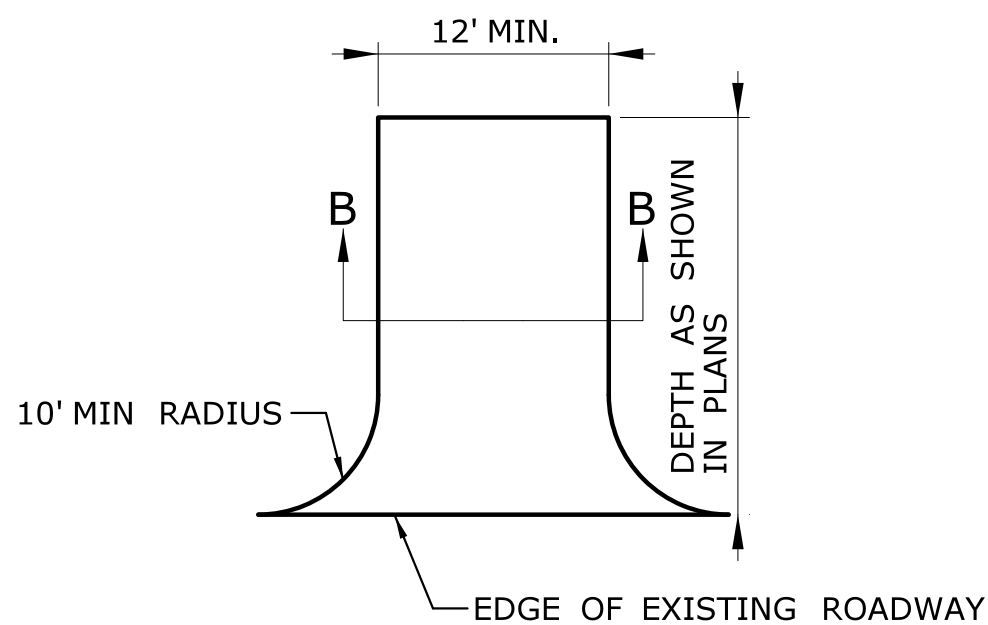
PERMANENT MODIFIED RIPRAP SWALE DETAIL  
STA. 12+60 TO 13+10 LT



PERMANENT MODIFIED RIPRAP SWALE DETAIL  
STA. 19+40

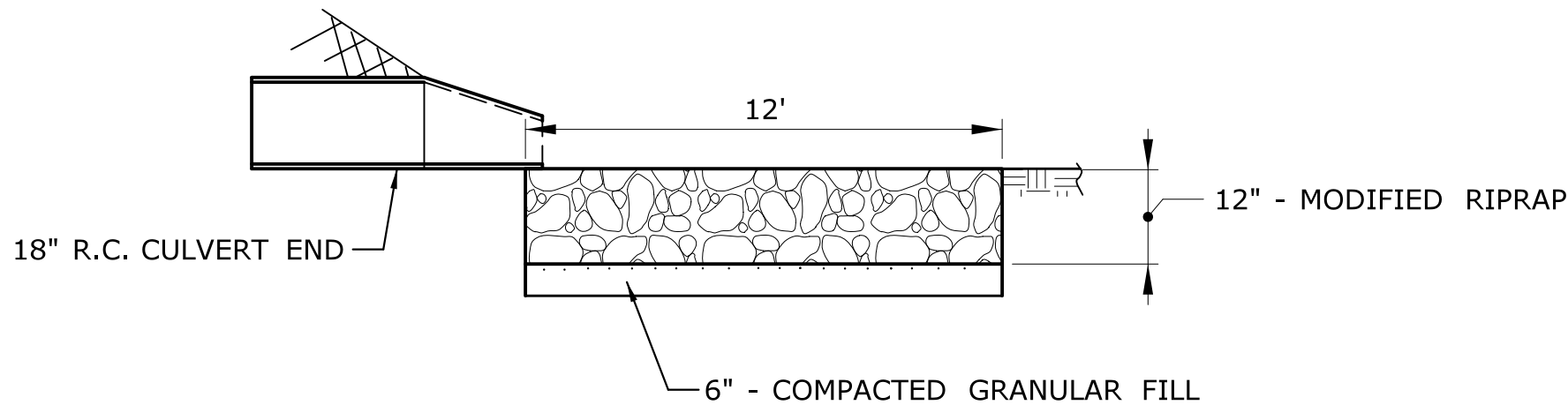


TRACKING PAD  
SECTION B-B

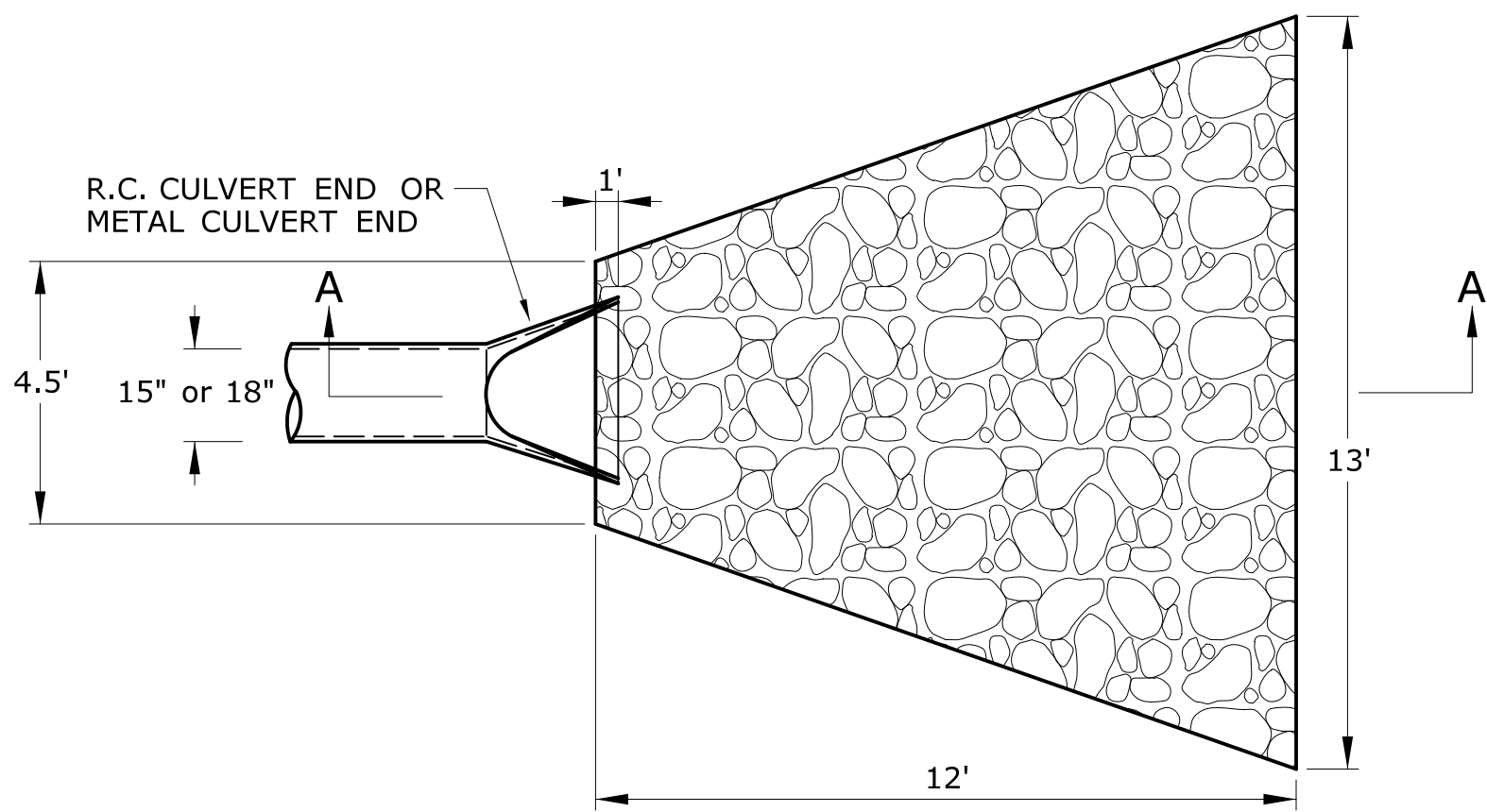


ANTI-TRACKING PAD  
(PAID AS "2" - CRUSHED STONE")

1. MAINTAIN ANTI-TRACKING PAD IN GOOD CONDITION THROUGHOUT CONSTRUCTION PERIOD.
2. ADJACENT ROADWAY SHALL BE SWEEPED DAILY TO REMOVE ANY MATERIAL THAT MAY BE TRACKED ONTO PAVEMENT.
3. WIDTH OF ANTI-TRACKING PAD SHALL NOT BE LESS THAT WIDTH OF INGRESS OR EGRESS.

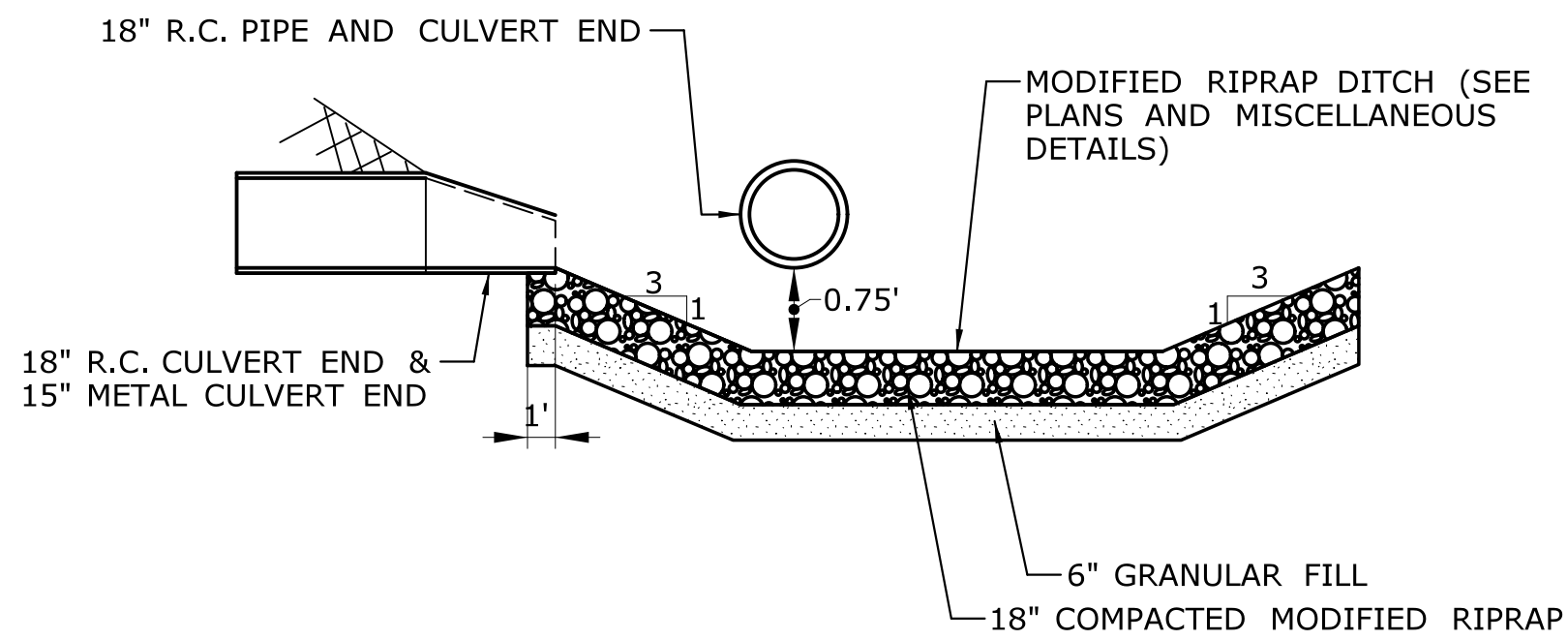


SECTION A-A

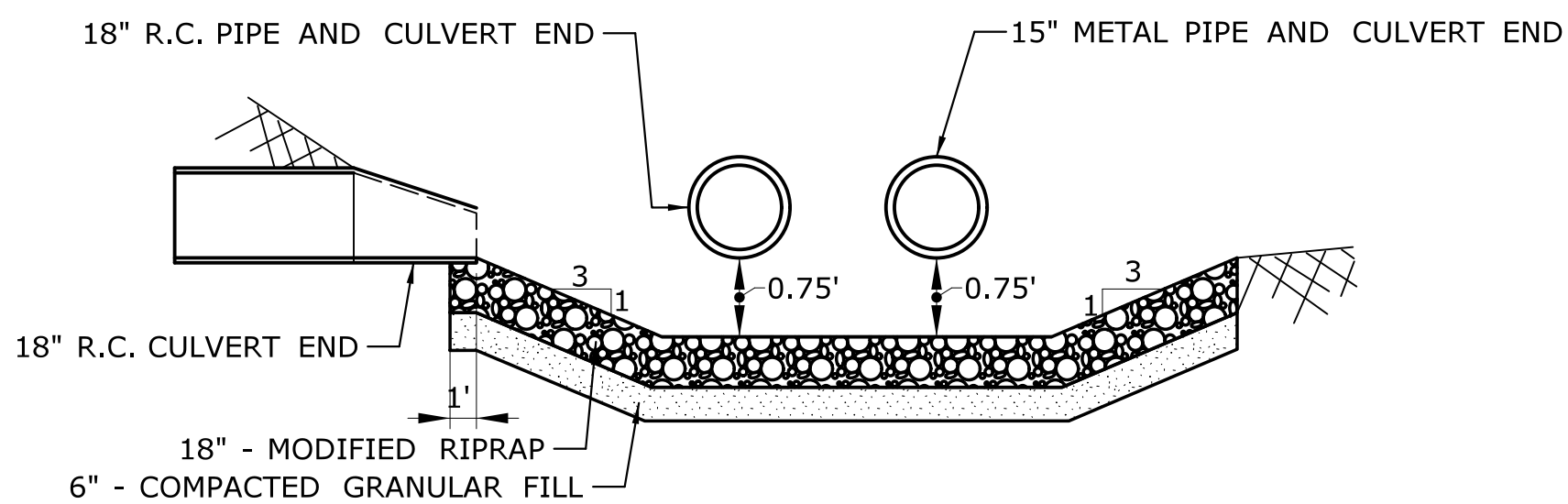


PLAN

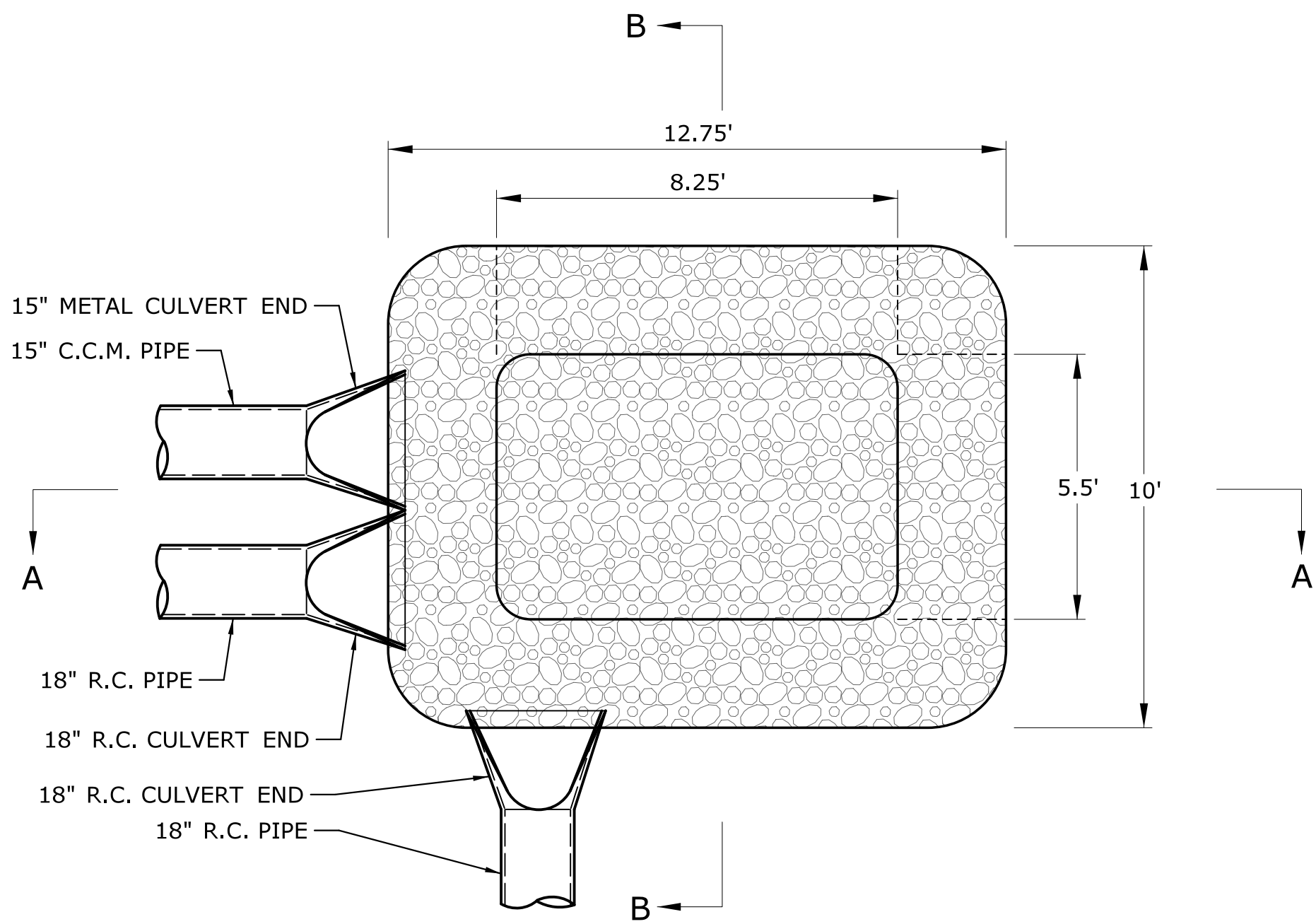
TEMPORARY & PERMANENT TYPE A MODIFIED RIPRAP APRON



SECTION A-A



SECTION B-B



PLAN VIEW  
TEMPORARY TYPE 1 PREFORMED SCOUR HOLE

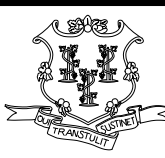
**NOTES:**  
EXCAVATION REQUIRED FOR THE INSTALLATION OF THE TYPE 1 PREFORMED SCOUR HOLE SHALL BE MEASURED & PAID FOR IN ACCORDANCE WITH "CHANNEL EXCAVATION - EARTH".

REV.	DATE	REVISION DESCRIPTION	SHEET NO.

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

Plotted Date: 11/21/2014

DESIGNER/DRAFTER:  
**DA/APC**  
CHECKED BY:  
**A. LeBLANC**  
NOT TO SCALE

**STATE OF CONNECTICUT**  
**DEPARTMENT OF TRANSPORTATION**  
Filename: ...\\HW\_MSH\_0042\_0310\_MDS-01.dgn

SIGNATURE/  
BLOCK:  
**OFFICE OF ENGINEERING**  
APPROVED BY:

PROJECT TITLE:  
**REHABILITATION OF BRIDGE**  
**No. 02368A ROUTE 2 WB**  
**OVER I-84 TR. 831 & 833**

TOWN:  
**EAST HARTFORD**  
DRAWING TITLE:  
**SPLASH PAD &**  
**SCOUR HOLE DETAIL**

PROJECT NO.  
**42-310**  
DRAWING NO.  
**MDS-01**  
SHEET NO.  
**04.03.03**

**State Project Nos.  
42-304, 42-305, 42-310 & 42-316**

**I-84/Route 2 Mixmaster Interchange**

**Stormwater Pollution Control Plan**

**Appendix B  
Stormwater Monitoring Report  
Notice of Termination Form**

**Bridge Nos. 02374, 02375, 02376 & 02368A  
East Hartford, Connecticut**



## SITE INFORMATION

**SAMPLING INFORMATION (Submit a separate form for each outfall)**

## MONITORING RESULTS

(provide an attachment if more than 4 samples were taken for this outfall)

Avg =

I certify that the data reported on this document were prepared under my direction or supervision in accordance with the General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities. The information submitted is, to the best of my knowledge and belief, true, accurate and complete.

Please send completed form to:

DEEP-WPED-SMR-015



# General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities

## Notice of Termination Form

Please complete and submit this form in accordance with the general permit (DEP-PED-GP-015) in order to ensure the proper handling of your termination. Print or type unless otherwise noted.

Note: Ensure that for commercial and industrial facilities, registrations under the *General Permit for the Discharge of Stormwater Associated with Industrial Activity* (DEP-PED-GP-014) or the *General Permit for the Discharge of Stormwater from Commercial Activities* (DEP-PED-GP-004) have been filed where applicable. For questions about the applicability of these general permits, please call the Department at 860-424-3018.

### Part I: Registrant Information

1. Permit number: **GSN**
2. Fill in the name of the registrant(s) as indicated on the registration certificate:  
Registrant: **Ravi V. Chandran, DOT District 1 Engineer**
3. Site Address: **1107 Cromwell Avenue**  
City/Town: **Rocky Hill** State: **CT** Zip Code: **06067**
4. Date all storm drainage structures were cleaned of construction sediment:  
Date of Completion of Construction:  
Date of Last Inspection (must be at least three months after final stabilization pursuant to Section 6(b)(6)(D) of the general permit):
5. Check the post-construction activities at the site (check all that apply):  
☐ Industrial ☐ Residential ☐ Commercial ☐ Capped Landfill  
☐ Other (describe):

### Part II: Certification

"I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that a false statement made in this document or its attachments may be punishable as a criminal offense, in accordance with Section 22a-6 of the Connecticut General Statutes, pursuant to Section 53a-157b of the Connecticut General Statutes, and in accordance with any other applicable statute."

Signature of Permittee

Date

Name of Permittee (print or type)

Title (if applicable)

Note: Please submit this Notice of Termination Form to:

STORMWATER PERMIT COORDINATOR  
BUREAU OF WATER MANAGEMENT  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
79 ELM STREET  
HARTFORD, CT 06106-5127

**State Project Nos.  
42-304, 42-305, 42-310 & 42-316**

**I-84/Route 2 Mixmaster Interchange**

**Stormwater Pollution Control Plan**

**Appendix C  
Outlet Protection Calculations**

**Bridge Nos. 02374, 02375, 02376 & 02368A  
East Hartford, Connecticut**

PROJECT NO. **42-310** UNIT: **English**

Location **Sta. 16+87 RT, Offset 97'**

**Empirical Preformed Scour Hole Equations:**

TW = **0.4** ft Tailwater depth  
 Q = **9.83** cfs Discharge  
 Rp = **1.5** ft Max. inside pipe rise (non-circular sections); inside pipe diameter (circular sections)  
 Sp = **2.75** ft Max. inside pipe span (non-circular sections); inside pipe diameter (circular sections)

Type 1: Scour Hole Depression = one-half pipe rise , ft  
 $d_{50} = (0.0125 R_p^2 / TW) (Q / R_p^2.5)^{1.333}$  .....Eq. 11.35  
 = **0.38** ft

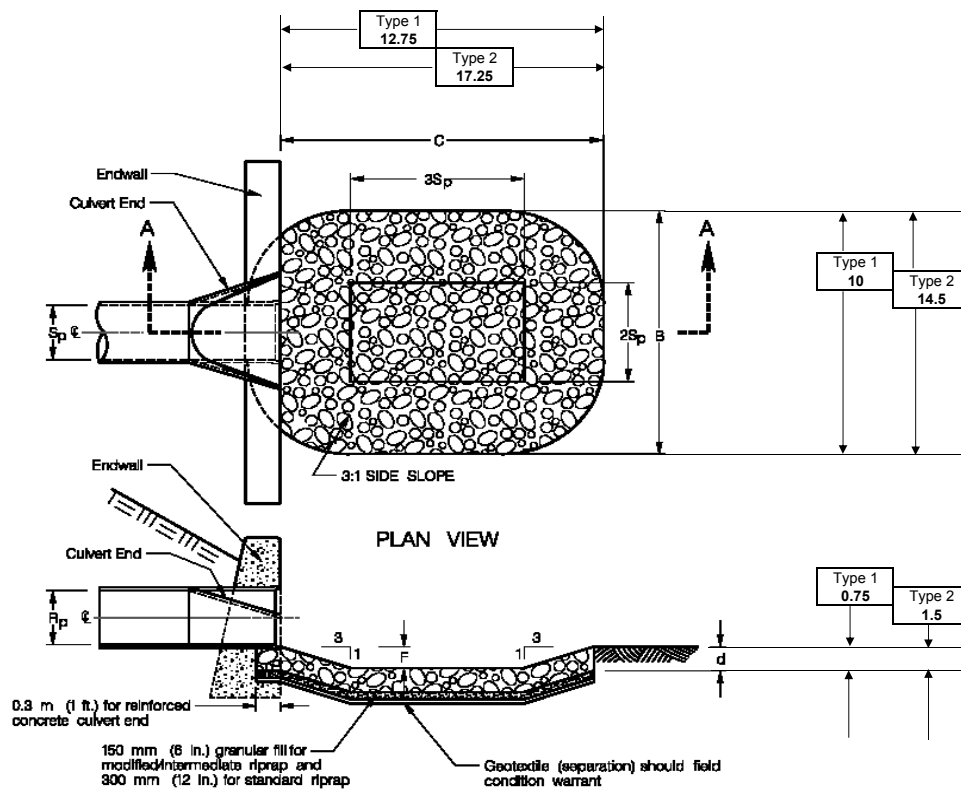
Riprap Class	Acceptable Range	Check	Vol. Cu.ft
Modified	$d_{50} < 0.42'$	<b>G</b>	134.4
Intermediate	$0.42' < d_{50} < 0.67'$	<b>G</b>	201.5
Standard	$0.67' < d_{50} < 1.25'$	<b>G</b>	403.1

C	<b>12.75</b>	Basin Length
B	<b>10</b>	Basin Inlet and Outlet Width
F	<b>0.75</b>	Basin Depression

Type 2: Scour Hole Depression = full pipe rise , ft  
 $d_{50} = (0.0082 R_p^2 / TW) (Q / R_p^2.5)^{1.333}$  .....Eq. 11.36  
 = **0.25** ft

Riprap Class	Acceptable Range	Check	Vol. Cu.ft
Modified	$d_{50} < 0.42'$	<b>G</b>	253.0
Intermediate	$0.42' < d_{50} < 0.67'$	<b>G</b>	379.5
Standard	$0.67' < d_{50} < 1.25'$	<b>G</b>	759.1

C	<b>17.25</b>	Basin Length
B	<b>14.5</b>	Basin Inlet and Outlet Width
F	<b>1.5</b>	Basin Depression



**SECTION A-A**

**LEGEND**

Sp = { Max. inside pipe span (non-circular sections)  
 inside pipe diameter (circular sections)  
 Rp = { Max. inside pipe rise (non-circular sections)  
 inside pipe diameter (circular sections)  
 d = { 300 mm (12 in.) Modified Riprap  
 450 mm (18 in.) Intermediate Riprap  
 900 mm (36 in.) Standard Riprap  
 Type 1 F = 0.5 Rp  
 Type 2 F = Rp  
 C = 3Sp + 6F  
 B = 2Sp + 6F

Figure 11-15 Preformed Scour Hole Type 1 and Type 2



PROJECT NO. **42-310** UNIT: **English**

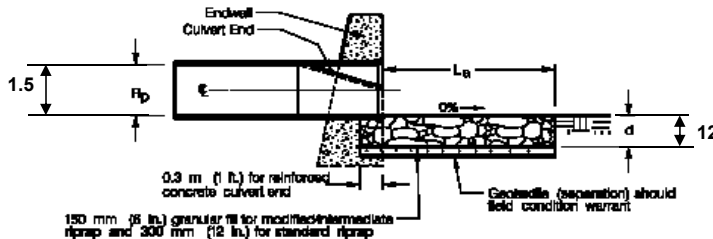
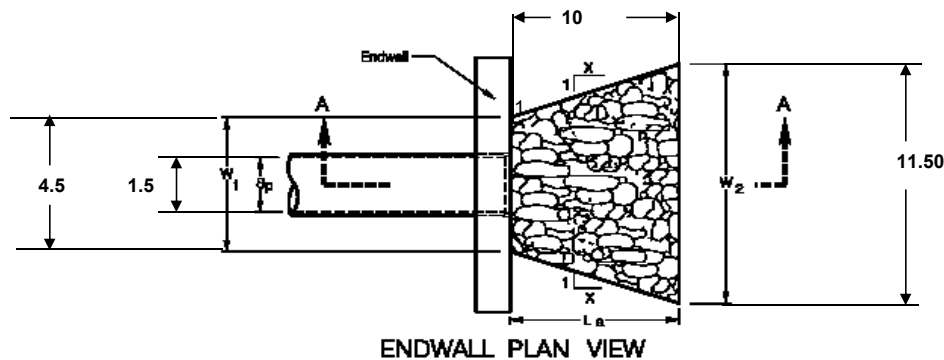
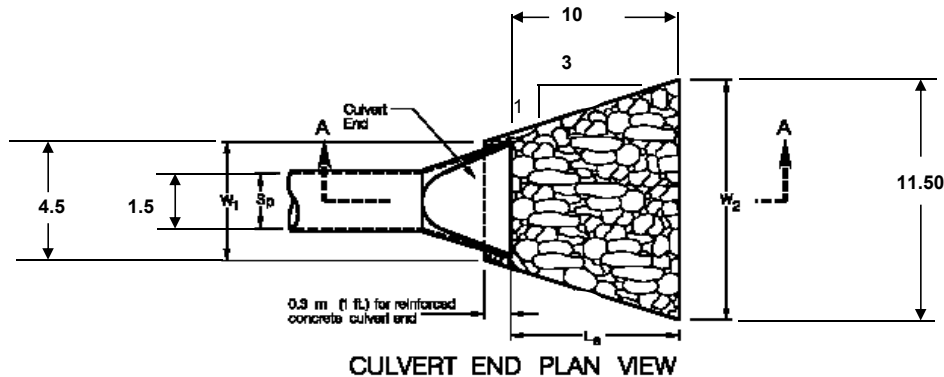
Location **Sta. 16+80 LT, Offset 143'**

**Type A & B Riprap Apron Design Form**

TW = **0.377** ft Tailwater depth  
 Q = **1.66** cfs Discharge  
 Rp = **1.5** ft Max. inside pipe rise (non-circular sections); inside pipe diameter (circular sections)  
 Sp = **1.5** ft Max. inside pipe span (non-circular sections); inside pipe diameter (circular sections)  
 V = **4.75** ft/s Outlet Velocity  
 Well Defined Channel Exist at Downstream ? **YES**

Apron Type **A**  
 Riprap Type **M**

Dimensions  
 La = **6.73** ft (Minimum Tailwater Condition, per CT DOT DM, Eq. 11.31)  
 X = **10** ft (From CT DOT DM, Table 11-12)  
 W1 = **3** ft  
 W2 = **4.5** ft  
 d = **11.5** ft  
 d = **12** inches



**LEGEND**

Sp = { Max. inside pipe span (non-circular sections)  
 Inside pipe diameter (circular sections)  
 Rp = { Max. inside pipe rise (non-circular sections)  
 Inside pipe diameter (circular sections)  
 La = Length of riprap apron measured from the end of culvert end section or face of endwall  
 d = { 300 mm (12 in.) Modified Riprap  
 450 mm (18 in.) Intermediate Riprap  
 900 mm (36 in.) Standard Riprap

	X	W1	W2
Type A Riprap Apron	3	3Sp	3Sp+0.7 La
Type B Riprap Apron	5	3Sp	3Sp+0.4 La



PROJECT NO. **42-310** UNIT: **English**

Location **Temp. Sta. 16+84 RT, Offset 86'**

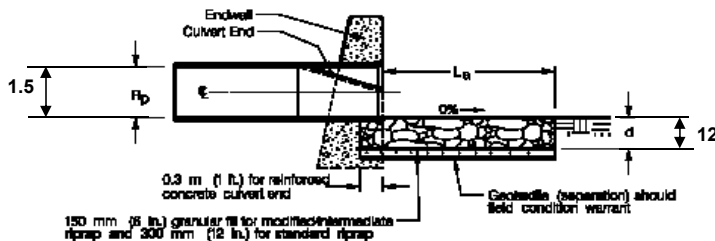
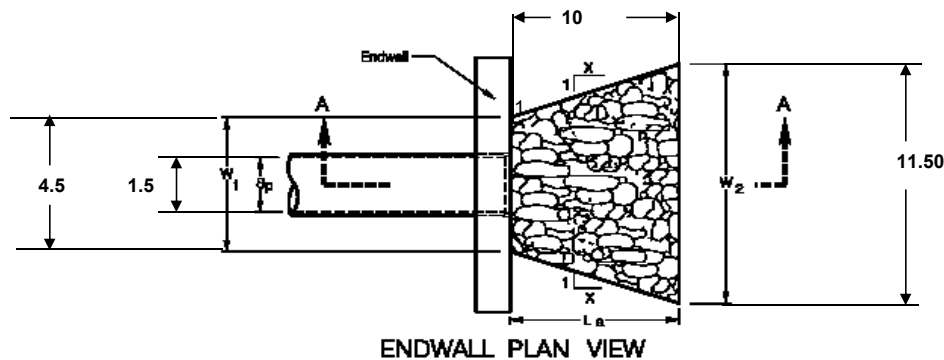
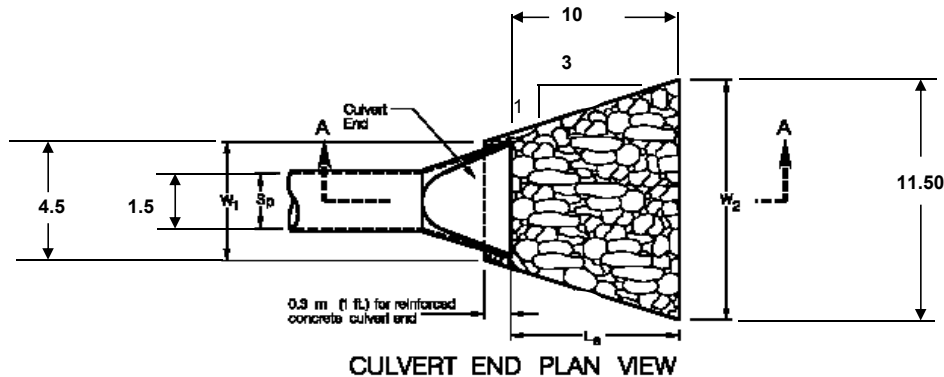
**Type A & B Riprap Apron Design Form**

TW = **0.428** ft Tailwater depth  
 Q = **3.06** cfs Discharge  
 Rp = **1.5** ft Max. inside pipe rise (non-circular sections); inside pipe diameter (circular sections)  
 Sp = **1.5** ft Max. inside pipe span (non-circular sections); inside pipe diameter (circular sections)  
 V = **7.333** ft/s Outlet Velocity  
 Well Defined Channel Exist at Downstream ? **YES**

Apron Type	<b>A</b>
Riprap Type	<b>M</b>

**Dimensions**

La =	<b>8.10</b>	ft	(Minimum Tailwater Condition, per CT DOT DM, Eq. 11.31)
X =	<b>10</b>	ft	(From CT DOT DM, Table 11-12)
W1 =	<b>3</b>	ft	
W2 =	<b>4.5</b>	ft	
d =	<b>11.5</b>	ft	
	<b>12</b>	inches	



**SECTION A-A  
CULVERT END AND ENDWALL**

**LEGEND**

Sp = { Max. inside pipe span (non-circular sections)  
 Inside pipe diameter (circular sections)  
 Rp = { Max. inside pipe rise (non-circular sections)  
 Inside pipe diameter (circular sections)  
 La = Length of riprap apron measured from the  
 end of culvert end section or face of endwall  
 d = { 300 mm (12 in.) Modified Riprap  
 450 mm (18 in.) Intermediate Riprap  
 900 mm (36 in.) Standard Riprap

	X	W1	W2
Type A Riprap Apron	3	3Sp	3Sp+0.7 La
Type B Riprap Apron	5	3Sp	3Sp+0.4 La

PROJECT NO. **42-310** UNIT: **English**

Location **Temp. Sta. 16+92 RT, Offset 91'**

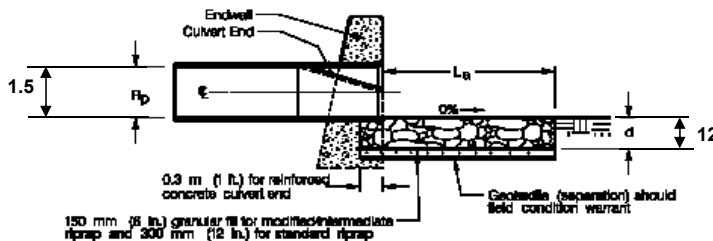
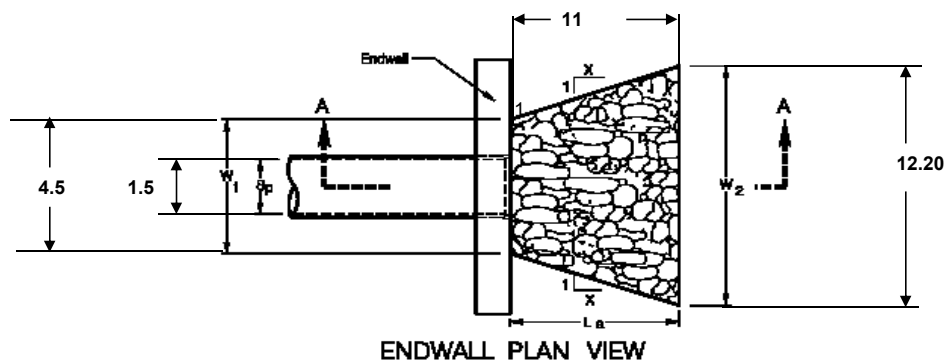
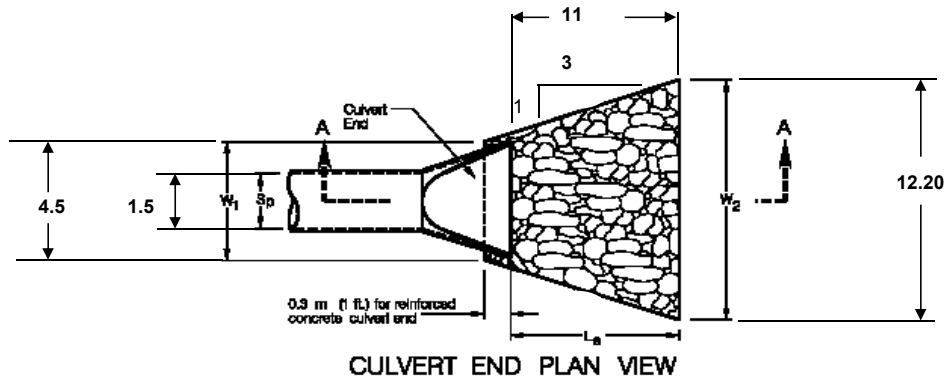
**Type A & B Riprap Apron Design Form**

TW = **1.325** ft Tailwater depth  
 Q = **5.61** cfs Discharge  
 Rp = **1.5** ft Max. inside pipe rise (non-circular sections); inside pipe diameter (circular sections)  
 Sp = **1.5** ft Max. inside pipe span (non-circular sections); inside pipe diameter (circular sections)  
 V = **4.398** ft/s Outlet Velocity  
 Well Defined Channel Exist at Downstream ? **YES**

Apron Type	<b>A</b>
Riprap Type	<b>M</b>

**Dimensions**

La =	<b>10.60</b>	ft	(Minimum Tailwater Condition, per CT DOT DM, Eq. 11.31)
X =	<b>11</b>	ft	(From CT DOT DM, Table 11-12)
W1 =	<b>3</b>	ft	
W2 =	<b>4.5</b>	ft	
d =	<b>12.2</b>	ft	
	<b>12</b>	inches	



**LEGEND**

Sp = { Max. inside pipe span (non-circular sections)  
 Inside pipe diameter (circular sections)  
 Rp = { Max. inside pipe rise (non-circular sections)  
 Inside pipe diameter (circular sections)  
 La = Length of riprap apron measured from the end of culvert end section or face of endwall  
 d = { 300 mm (12 in.) Modified Riprap  
 450 mm (18 in.) Intermediate Riprap  
 900 mm (36 in.) Standard Riprap

	X	W1	W2
Type A Riprap Apron	3	3Sp	3Sp+0.7 La
Type B Riprap Apron	5	3Sp	3Sp+0.4 La

PROJECT NO. **42-310** UNIT: **English**

Location **Sta. 19+60 RT, Offset 48'**

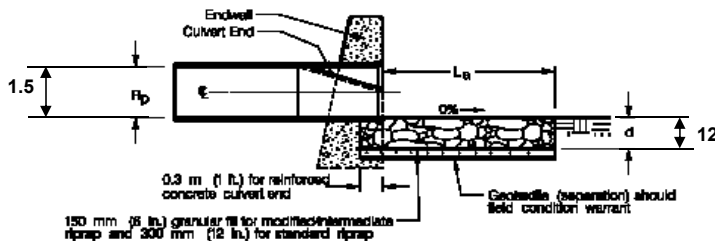
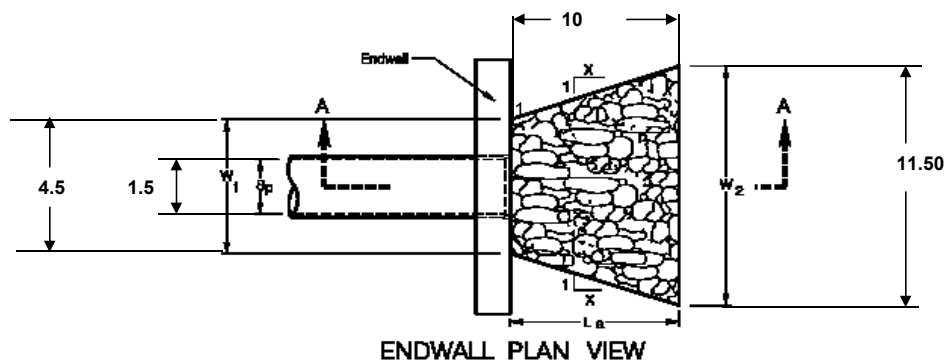
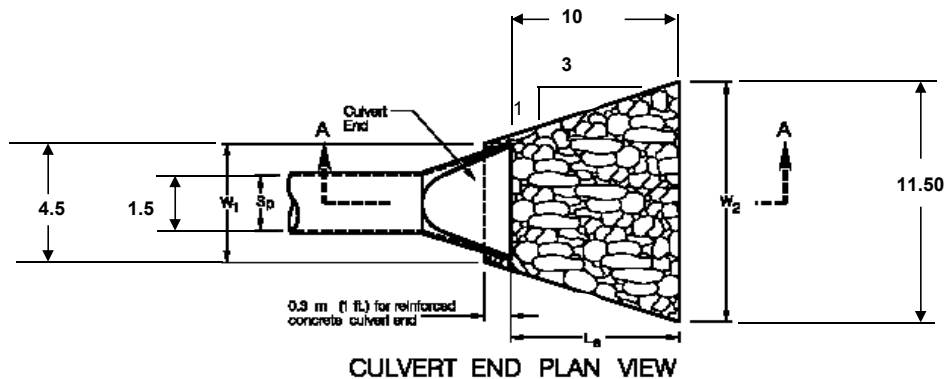
**Type A & B Riprap Apron Design Form**

TW = **0.633** ft Tailwater depth  
 Q = **2.65** cfs Discharge  
 Rp = **1.5** ft Max. inside pipe rise (non-circular sections); inside pipe diameter (circular sections)  
 Sp = **1.5** ft Max. inside pipe span (non-circular sections); inside pipe diameter (circular sections)  
 V = **3.79** ft/s Outlet Velocity  
 Well Defined Channel Exist at Downstream ? **YES**

Apron Type	<b>A</b>
Riprap Type	<b>M</b>

**Dimensions**

La =	<b>7.70</b>	ft	(Minimum Tailwater Condition, per CT DOT DM, Eq. 11.31)
X =	<b>10</b>	ft	(From CT DOT DM, Table 11-12)
W1 =	<b>3</b>	ft	
W2 =	<b>4.5</b>	ft	
d =	<b>11.5</b>	ft	
	<b>12</b>	inches	



**LEGEND**

Sp = { Max. inside pipe span (non-circular sections)  
 Inside pipe diameter (circular sections)  
 Rp = { Max. inside pipe rise (non-circular sections)  
 Inside pipe diameter (circular sections)  
 La = Length of riprap apron measured from the end of culvert end section or face of endwall  
 d = { 300 mm (12 in.) Modified Riprap  
 450 mm (18 in.) Intermediate Riprap  
 900 mm (36 in.) Standard Riprap

	X	W1	W2
Type A Riprap Apron	3	3Sp	3Sp+0.7 La
Type B Riprap Apron	5	3Sp	3Sp+0.4 La

**State Project Nos.  
42-304, 42-305, 42-310 & 42-316**

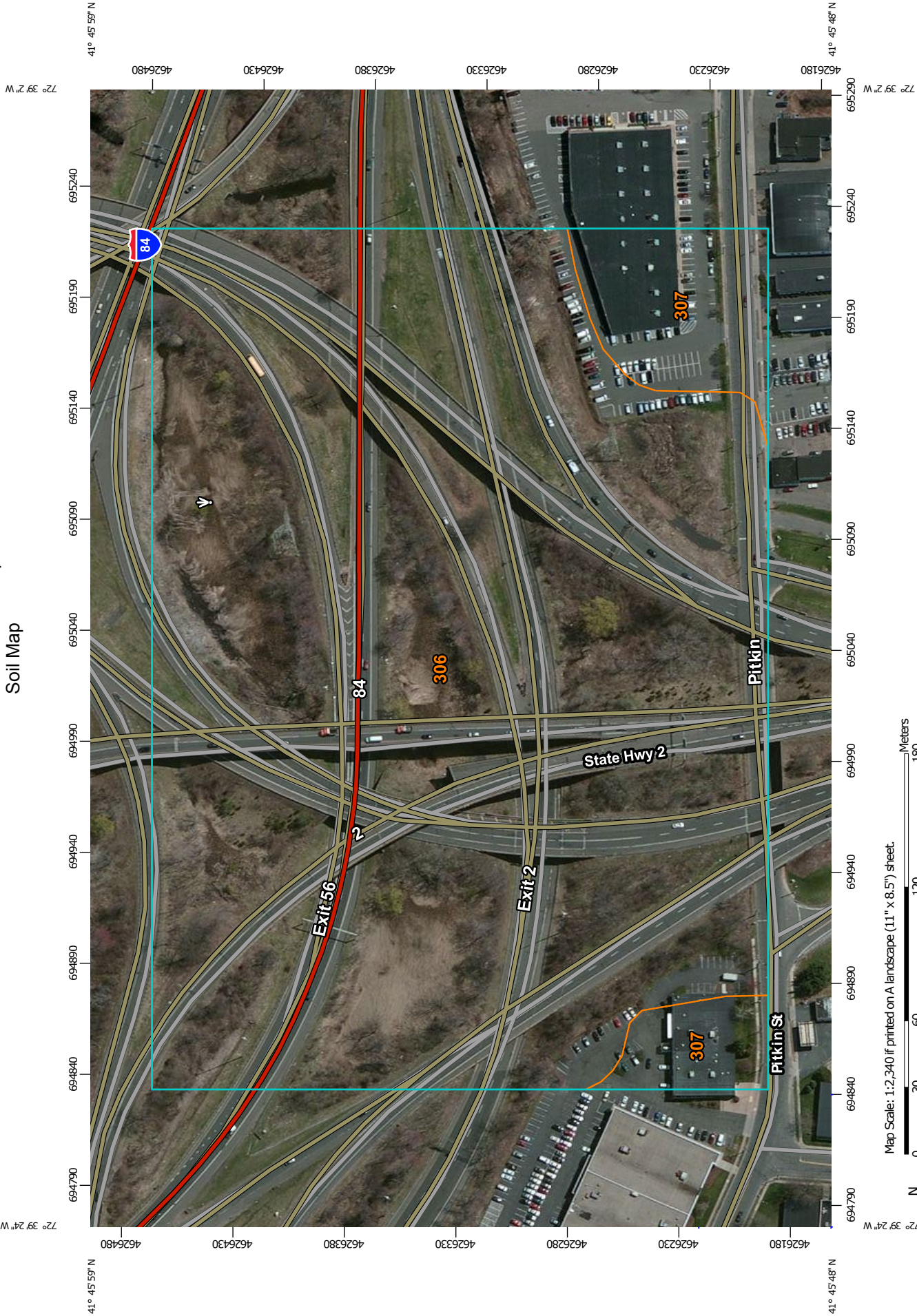
**I-84/Route 2 Mixmaster Interchange**

**Stormwater Pollution Control Plan**

**Appendix D  
NRCS Soil Resource Report**

**Bridge Nos. 02374, 02375, 02376 & 02368A  
East Hartford, Connecticut**

Custom Soil Resource Report  
Soil Map



Map Scale: 1:2,340 if printed on A landscape (11" x 8.5") sheet.

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84



MAP LEGEND

**Area of Interest (AOI)**

Area of Interest (AOI)

**Soils**

Soil Map Unit Polygons

Soil Map Unit Lines

Soil Map Unit Points

**Special Point Features**

Blowout

Borrow Pit

Clay Spot

Closed Depression

Gravel Pit

Gravelly Spot

Landfill

Lava Flow

Marsh or swamp

Mine or Quarry

Miscellaneous Water

Perennial Water

Rock Outcrop

Saline Spot

Sandy Spot

Severely Eroded Spot

Sinkhole

Slide or Slip

Sodic Spot

Spoil Area

Stony Spot

Very Stony Spot

Wet Spot

Other

Special Line Features

**Water Features**

Streams and Canals

**Transportation**

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

**Background**

Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service  
Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>  
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: State of Connecticut  
Survey Area Data: Version 13, Oct 28, 2014

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 28, 2011—May 12, 2011

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map-unit boundaries may be evident.

## Map Unit Legend

State of Connecticut (CT600)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
306	Udorthents-Urban land complex	24.5	92.1%
307	Urban land	2.1	7.9%
<b>Totals for Area of Interest</b>		<b>26.6</b>	<b>100.0%</b>

## Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.